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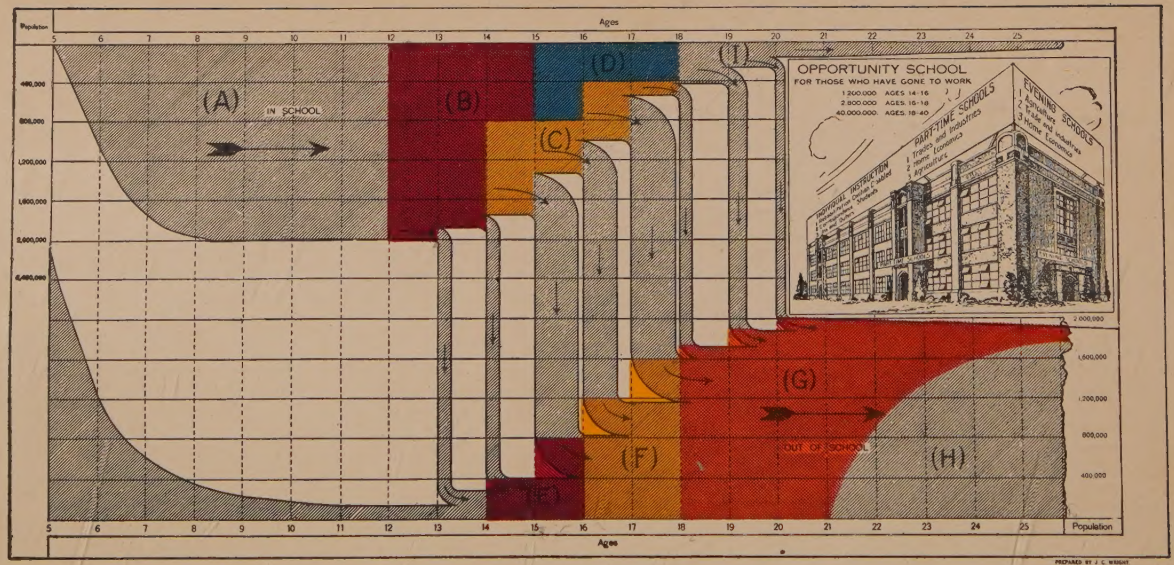
THE EDUCATIONAL FLOW SHEET



THE ADMINISTRATION OF VOCATIONAL EDUCATION

OF LESS THAN COLLEGE GRADE

BY

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CHARLES R. ALLEN

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THE AUTHORS
DEDICATE THIS BOOK
TO THOSE

PIONEER WORKERS IN THE FIELD OF
VOCATIONAL EDUCATION
WITH WHOM THEY HAVE BEEN ASSOCIATED
AND WITHOUT WHOSE ADVICE AND ASSISTANCE
THE BOOK WOULD NOT HAVE BEEN WRITTEN

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AUTHORS' PREFACE

Almost a decade has passed since the inauguration of a nation-wide program of vocational education. This program now requires the services not only of many full-time administrators and supervisors, but of those who divide their time between vocational education and other educational fields. When the program was inaugurated in 1917 a few experienced leaders were called upon to organize and promote this new program. The number of leaders available was greatly limited, since very few States and communities had vocational programs in operation, at least of the type contemplated.

During the earlier years of its development great emphasis upon promotional work was required and the personnel employed was small in number, but the program has now progressed through the initial stages of promotion until to-day fully 20,000 teachers, supervisors, and administrators are employed and the enrollment has reached nearly 900,000 students. The authors believe that the time has now arrived when major emphasis should be placed upon the improvement of the program, the improvement of its personnel, of its social value, and upon a program of definite training for those who aspire to become administrators and supervisors in this field of education.

In the preparation of this book the authors have drawn freely from their own experiences of from thirty to forty years in educational work, of which the first half was spent in general education and the last half in a wide variety of administrative and supervisory positions in the field of vocational education. The information and experiences thus obtained have been brought together in two books, this volume on The Administration of Vocational Education and a companion volume on The Supervision of Vocational Education. The authors' aim, therefore, is to place at the disposal of the prospective administrator, and of the young administrator in vocational education, such portions of their own

experiences as will be helpful in assisting them in preparation for improvement in their work. The authors trust that this book will also be of service to administrators and supervisors of more mature experience as a means of self-improvement.

Acknowledgment is made to Dr. Lewis A. Wilson, Director of Division of Vocational and Extension Education, State Department of Education, Albany, N. Y.; to Dr. William S. Taylor, Dean, College of Education, University of Kentucky, Lexington, Ky.; to Miss Anna E. Richardson, Dean, Home Economics Division, Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa; and to Mr. John S. Shaw, Assistant Editor, Federal Board for Vocational Education, for reading and criticizing the manuscript.

J. C. Wright
Charles R. Allen

AN APPRECIATION

It is indeed a fortunate circumstance that unites in authorship of this book two national leaders in vocational education — one widely known as an administrator, and the other long recognized as an analyst. Either author alone would have made a worthy contribution; they have supplemented each other, however, so that the final product is unique in the practical nature of the topics considered and profound in the penetration of treatment.

Unlike the older publications on educational administration, characterized by discussions of administrative theories, origin of practices, and comparative points of view, this volume attacks with direction and clarity the immediate tasks of the official charged with the administration of a program of vocational education.

For years, *administrative* and *supervisory* responsibilities have been considered as identical. The two terms have been regarded as synonymous and interchangeable. For the first time in the vocational field, these two important responsibilities have been clearly defined and differentiated. The thoughtful student and reader will be convinced that both of these functions are indispensable; and, while he will become aware of mutual interdependence, he will also learn the true boundaries of each.

While no one knows fully the extent to which local programs in vocational education have been retarded or accelerated due either to inadequate or to statesmanlike administration, we are becoming aware of the great importance of the place of the administrative officer. If, to native intelligence, and unselfish devotion to the cause of education, there may be added knowledge and skill, the administrative officer becomes a creator, in the best sense of the term. Under his guidance, that which might otherwise be "humdrum" and commonplace is elevated to a position of first magnitude.

This volume will contribute much to a fuller understanding of the work of this important official. To graduate students of vocational education, it will be invaluable.

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August 13, 1926.

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INTRODUCTION TO THE PROBLEM

The United States Census of 1920 shows a population of a little more than 2,000,000 people for each of the ages between 1 and 25. To be more exact, it reports 2,300,605 in the age of 1 year and 2,046,265 in the age of 14, after which the number falls below 2,000,000, until at the age of 99 but 1054 members of the human family are left. The accompanying chart, or "School Flow Sheet," shows these millions entering school after the age of 5, passing through the elementary grades, the junior and senior high schools, and through college on their way to take their places with the more than 40,000,000 men and women engaged in useful employment in the home, on the farm, in industry, and in commercial or professional pursuits.

The most pronounced departure from school to work begins at the age of 13, when 205,320 boys and girls leave the elementary schools. Upon reaching the age of 14 years, 110,645 join their brothers and sisters at work; and during the three succeeding years the number out of school is increased by 409,439, by 359,341, and by 229,741, respectively. Between the ages of 12 and 20 the school population, for the respective years, drops from 2,082,749 to only 148,352. This latter number represents the 9 per cent still in school, while 91 per cent have gone to work.

A glance at the accompanying chart will show that one of the most important problems of the public school administrator is that of rendering the maximum social service to the more than 90 per cent who go to work before they are 20, and to whom this service must be rendered, if at all, while they are yet in the advanced years of the elementary grades and throughout the secondary period.

It is idle to dream of a situation in which all youth would remain in school until the completion of even a high school education. By causing them to do so we should practically double the high school population and thus increase the cost of education beyond

the limits of school budgets and taxing limitations, in fact, beyond that share of our present surplus wealth which we are willing to devote to education. Moreover, it is extremely doubtful whether the educational advantages resulting from attendance at the full-time school would be sufficiently productive of social values to offset the economic disadvantages which would be inflicted upon those who had gone to work, were they forced back into this type of school and compelled to give up their productive employment.

The solution of this problem does not lie in the enlargement of the non-productive groups in the full-time school, but rather in the extension of school facilities to the millions at work, both youth and adult. The problem of the administrator of vocational education, is, therefore, one of utilizing and developing efficient educational organizations for the purpose of providing opportunities for vocational education to the millions of youth about to leave school, and of devising new organizations, new procedures, and new ways and means by which a similar service can be extended to the many more millions of adolescents and adults who have gone to work.

A great deal is known about methods of rendering satisfactory service to those in the elementary school (Group *A*); and administrators have been experimenting for almost a generation with the development of an organization capable of handling efficiently those of junior high school age (Group *B*). The objectives of secondary education have been, and still are, greatly confused. Neither the school nor the individual has learned to appreciate the words of Lincoln: " Educated people must labor. Otherwise, education itself would become a positive and intolerable evil. No country can sustain in idleness more than a small percentage of its numbers. The great majority must labor at something productive. From these premises the problem springs: 'How can labor and education be the most satisfactorily combined?'"

At present, Groups *C* and *D*, both of secondary grade, are not clearly functionalized in practice. Group *C*, as may be noted from the Flow Sheet, represents the one or two million boys and girls who should be pursuing a program intended to prepare them for advantageously entering into some kind of productive work at the end of a one, two, or three-year period, rather than to prepare

them for entrance into a college, which they will never attend. Group *D* includes those who are college-bound and who may be expected to receive their vocational preparation as of college grade.

Very little is known about the best type of organization for giving educational service to the employed youth, as represented by Groups *E* and *F*. They, too, are entitled to all the consideration and benefits to be derived from a public school program, as are those of similar age in the full-time school. Instead, however, of calling upon society to raise three or four hundred millions of dollars for full-time educational service, they are content to remain at work as productive citizens, contributing to the wealth of the nation and satisfied with the much less expensive service rendered to them through the part-time and evening schools.

In dealing with these groups, the administrator must face a variety of problems: that of assisting the employed youth to secure effective social adjustment; that of increasing their civic and vocational intelligence; and that of enabling them to acquire functioning technical knowledge and skill for the many fields and occupations in which they are now employed.

The problem of the 40 million adults at work, between the ages of 18 and 40, represented by groups *G* and *H*, is somewhat simpler, since for them it is generally agreed that this service, for the most part, involves the opportunity to attend school and hold a job at the same time. The chart shows in a very general way, by Group *G*, those who would probably be willing to give up a portion of their leisure time to secure vocational educational training for self-improvement and advancement.

In the various chapters of this book the authors have undertaken to discuss the functional responsibilities of the administrator of vocational education as placed in the educational scheme illustrated on the "School Flow Sheet." His field will begin in a limited way in the junior high school area through a program of information, advice, and guidance, and will spread out over the vocational area of the all-day school, *C*. Under the philosophy of education and the conception of a school program prevailing twenty years ago, his duties would have been limited to these groups. To-day our philosophy is much broader; we have come to believe that the public schools are responsible for giving edu-

cational opportunities to all the people, including those at work. The administrator of vocational education under this newer philosophy must therefore discharge responsibilities that concern themselves with Groups *E*, *F*, *G*, and *H*. Here his problem is largely one of combining school and work, of supplementing work experiences with school instruction, and in this way equipping the individual for maximum social service.

THE ADMINISTRATION OF VOCATIONAL EDUCATION

CHAPTER I

ADMINISTRATION AND SUPERVISION

Preliminary. — In carrying out any educational program, there are two distinct groups of responsibilities which must be discharged. The first group involves the performance of all those duties that make possible the carrying on of the program. The second group involves all those duties that make for the better operation and improvement of the program. The first group of responsibilities is administrative in the sense in which the word is used in this book. The second group of responsibilities is supervisory in the sense in which that term is used in this book and was used in the companion volume on "Supervision of Vocational Education."

As in the case of "Supervision" in the companion volume, so in this book the treatment is carried on entirely from the standpoint of function rather than from the standpoint of any given pay roll job, since in practice pay roll jobs vary so much in their relative distribution between supervisory and administrative responsibilities and duties that a satisfactory discussion from the standpoint of a pay roll job is very difficult and would be unsatisfactory to the reader.

As an example of the distinction between administration and supervision, the reader may take an agricultural department in a rural high school in which these relative functions appear very much as given in Table No. 1.

The reader will note that in the following table all the responsibilities listed in the administrative column are concerned with bringing the teacher and the learner together under feasible work-

TABLE No. 1

ADMINISTRATIVE AND SUPERVISORY RESPONSIBILITIES IN A RURAL HIGH SCHOOL

Administrative Responsibility	Supervisory Responsibility
1. Length of course.	1. Instructional content.
2. Conditions of admission.	2. Efficiency of instruction.
3. Employment of teachers.	3. Educational value of supervised project work.
4. Qualifications of teachers.	4. Fitness of graduates for any given job.
5. Salary of teachers.	5. Improvement of teaching.
6. Getting jobs for graduates.	6. Formulation of standards.
7. Elimination of pupils who can not profit by the instruction.	7. Formulation of tests for progression.
8. Enforcement of standards.	8. Specifications for equipment, supplies, and housing.
9. Determining type of organization.	9. Specifications for instructional material.
10. Providing equipment, supplies, and housing facilities.	
11. Conforming to legal requirements.	

ing conditions, *i.e.*, under conditions which establish a reasonable presumption that a satisfactory instructional job can be carried out in terms of a given objective. In a similar manner, all the responsibilities listed in the supervisory column relate to getting the instructional job done in as efficient a manner as possible. In other words, the administrator provides and the supervisor operates, in the same sense that a general manager provides and a foreman operates his department. While the administrative function is responsible for the character of the product, it does not turn out the product directly.

In order to avoid any misunderstanding on the part of the reader, it should be understood that under good administrative conditions, whatever may be the form of organization, the decisions represented by the statements in the administrative column

of Table No. 1 would not be reached without due consideration of recommendations made by the supervisor as a technical expert. All the responsibilities listed in Table No. 1 have, as a matter of fact, been delegated to the administrator by a superior authority, such as a board of education, which is in turn responsible to the final authority, the people. The administrator, in turn, has delegated to the supervisor all the responsibilities of the character indicated in the supervisory column. Under these conditions the supervisor becomes finally responsible to the administrator, and the administrator in turn to his superior authority. The responsibilities that the administrator directly exercises are his functional responsibilities, and those for which he holds the supervisor directly responsible become supervisory functional responsibilities.

A Concrete Illustration. — As an example of how these responsibilities are carried out in practice, one of the authors recently was called to participate in a State conference for the purpose of developing a State program in trade and industrial education. In this particular State the principal industry is copper mining. The administrator had provided an advisory committee consisting of five representatives of the mining industry, one superintendent of schools, and a local supervisor of trade and industrial education, together with his State supervisor of trade and industrial education. The group was in session for two days, and discussed, under the leadership of the supervisor, the needs of the industry and the steps that were necessary in order to meet these needs. As a result of a discussion and consideration of the various problems involved in setting up a State program, the plan outlined in Table No. 2 was developed.

It will be noticed in Table No. 2 that the statements in Columns 1, 4, 5, and 6 represent administrative decisions, whereas the statements in Columns 2, 3, and 7 represent decisions by the supervisor. In other words, the administrator said, in effect: " I want to train leaders to conduct foremen's conferences and the State will provide promotion and leadership through expert service." The representative of a local school district stated that the district would provide a local supervisor as a trainee; and the industry stated that it would provide the trainees, and the expense of travel

TABLE No. 2

Outline of Program for Vocational Education in the Mining Industry

(Prepared for use in State of Arizona)

(1) Objective	(2) Device	(3) Approximate Need	(4) State Provides	(5) School District Provides	(6) Industry Provides	(7) Type of Individual
1. To train leaders to conduct foremen conferences.	The conference.	(*a*) 12 (*b*) 120	Promotion and leadership through expert service.	Local supervisor as trainee.	Trainees and expense of travel where necessary.	Minor executive.
2. To improve foremanship.	Foremen's conferences.	522	Coöperation. Follow-up leadership. Demonstration conferences.	Meeting Place. Coöperation. Same as State. (Limited to local community.)	Coöperation. Selects foremen to be improved. Permanent leadership.	Industrial leaders having bossing responsibilities.
3. To train new teachers. To improve teachers in service.	State group meetings. Local group meetings.	250	General supervision. Teacher training.	Meeting place. Local supervision. Assistance in selection of groups.	Assistance in selecting teachers.	Occupationally competent workers.
4. To give trade instruction.	Evening and part-time classes.	3000	Supervision. Subsidy 50 per cent of instructor's salary.	Equipment. 50 per cent of teacher's salary. Maintenance.	Coöperation in supplying students. Employment. Training facilities.	Employed workers.
5. The improvement of school legislation so as to provide apprentice program.	Organized agencies.		Necessary information. Publicity and outline legislation.	Support for legislation.	Support for legislation.	

where necessary. The supervisor, as a technical expert, reported that under these conditions there would be required approximately 12 conference leaders and 120 mine superintendents desirous of being equipped so as to handle this work with their own particular foremen; that the proper educational procedure for accomplishing this objective was "the conference"; and that the type of individual required for training as a conference leader was a minor executive. The same distinction between the discharge of supervisory and administrative functions can be traced in a similar way for the other four objectives.

Need for Coöperation. — In the discussion of functional responsibilities, there is no implication that different functional responsibilities should be discharged in an absolutely independent manner. The most disastrous thing that an administrator can do is to discharge his functional responsibilities without utilizing the technical knowledge and experience of his supervisors; and the converse of this statement is equally true. In other words, it is impossible to get the job done in an effective way without the closest kind of coöperation between all individuals who have functional responsibilities bearing upon that particular job.

As between the administrative and the supervisory functions, there is no question as to the relative importance of coöperation; it is equally important to both. An administrator can not work successfully without the full coöperation of his supervisory staff, and a supervisory staff can not do effective work without the full coöperation of the administrator.

The supervisor is the technical expert. Almost all of the decisions that the administrator has to make will be made intelligently or unintelligently according to the degree to which he secures and takes into consideration the experience and technical knowledge of his supervisory staff. Referring to Table No. 1, for example, the administrator must decide on the length of the course, but he can not make this decision with any degree of intelligence except on the advice of the supervisor. As a matter of fact, the supervisor will frequently need to secure similar advice from the teacher, as the expert in that particular occupation, or as the individual who must actually accomplish the objective.

The same statement holds true in connection with all of the other items in the administrative column.

Three Major Administrative Functions. — Practically all administrative functions may be classified under one of three general headings: (1) general administration, (2) personnel management, and (3) making the operation and improvement of the program possible. These general responsibilities may be sub-classified as follows:

A. General Administrative.

1. Organizing and maintaining the staff.
2. Preparing and administering the budget.
3. Developing and administering standards for employment of technical staff.
4. Developing and administering standards for the employment of teachers.
5. Determining locations and plans for schools.
6. Determining equipment and lay-out for schools.
7. Providing supplies.
8. Establishing standards for programs, for courses, and for special instructional material.
9. Providing for the preparation of suitable texts and other instructional materials.
10. Developing and administering standards for the admission and promotion of pupils.
11. Measuring the value of instruction.
12. Measuring the efficiency of supervision.
13. Establishing and administering standards for records and reports.
14. Administering and initiating legislation.
15. Initiating, developing, and administering plans, placement, and adjustment of trained students.
16. Directing and approving itineraries.
17. Planning ahead.

B. Personnel Management.

1. Establishing and maintaining coöperative relations with other departments.

2. Getting publicity.
3. Carrying out policies.
4. Maintaining morale through the promotion of interest.
5. Maintaining morale through the maintenance of satisfaction.
6. Administering transfers, promotions, and assignments of teachers.

C. Making the Improvement of the Program Possible.

1. Developing new standards for rating, promotion, transfer, and placement of teachers.
2. Providing for the improvement of teachers.
3. Directing research.
4. Securing personal professional improvement.
5. Formulating and administering new policies.

A discussion of the foregoing responsibilities constitutes the remaining portion of this book.

Some Confusions and Difficulties. — Certain confusions and difficulties have arisen as between administrative and supervisory functions. In many cases supervisors fail to appreciate the importance of the administrative function; and it is equally true that in many cases administrators fail to appreciate the importance of the supervisory function. It is likewise true that administrators frequently undertake to discharge supervisory functions which they are technically incompetent to perform successfully, and that in many cases supervisors intentionally or unintentionally encroach upon the administrative field. This situation has come about either through unfortunate personal characteristics, or through the fact that no definite analysis of functional responsibility has ever been made.

The Relation Between the Supervisory and Administrative Functions. — Functionally, any administrator is responsible to his superior authority for every phase of his program. As a matter of fact, however, in many phases of his work he must utilize special technical knowledge which he can not be expected to possess, and, therefore, must rely on the services of technical experts. These technical experts represent the group of functions that constitute

his functional supporting service. Under these conditions he must often rely upon others while at the same time he is ultimately and finally responsible for the results of following such expert advice. Under these conditions, while he can not and should not undertake to reach out into the field of the expert, nevertheless he must be able to evaluate such expert advice as he may have to utilize. This means that, while the expert possesses "doing" ability in his special field, the administrator must possess sufficient appreciation to be able to understand the expert and to evaluate his advice or recommendations.

The tendency on the part of certain administrators to assume supervisory responsibilities probably had its origin in the days when the school trustees in the rural or country schools felt that it was a part of their responsibility to "examine" the classes annually and pass upon the character of the instruction.

Another unfortunate situation exists where an administrator so minimizes the importance of the supervisory responsibility that he practically converts his supervisory staff into a purely inspectorial body. In this case the real supervisory responsibilities are not discharged at all.

Need for Special Training for Administration. — Most of the misunderstandings and confusions of the type mentioned in the preceding paragraph can be traced to a lack of appreciation of the need for concrete functioning training for administrative work in vocational education. This is true in so far as these difficulties arise on the administrative side. As a matter of fact, little or no attempt has been made to organize courses that specifically prepare for administrative work in vocational education. In the first place, most of the courses that have been offered do not differentiate to any great extent between general education and vocational education; and, in the second place, they deal largely with objectives on the appreciation rather than on the "doing" level. These objectives are general rather than specific, and group selection is not secured on the basis of previously demonstrated special ability in the administrative field. At least so far as vocational education is concerned, experience secured on the administrative job has developed much more rapidly than has the incorporation of that experience into organized training courses.

For example, it is now known that the ability to deal successfully with personnel management problems, of the same general type as those that must be dealt with in commerce and industry, plays a much more important part in the administration of vocational education than it is commonly believed to play in general educational administrative work. The greater value of this ability in vocational education is due, at least in part, to the fact that vocational education deals so largely with employed youth or adults who possess very different group characteristics from those of the typical full-time school group.

A successful administrator of vocational education must, therefore, be fairly expert in occupational personnel management since so many of his administrative problems must take these occupational group characteristics into consideration.

At the present time, specific training in occupational personnel management does not, as a rule, find much place in courses or programs whose objective is to prepare individuals for administrative work in vocational education of less than college grade. Certainly no specific training is provided that would equip a prospective administrator in this special field to deal with personnel management problems of the occupational type just discussed.

This situation is, however, not different from that which always exists in the development of a new program. The need for certain training is always recognized before satisfactory methods for providing such training on an organized basis have been incorporated into the curricula of training institutions.

Among the difficulties arising out of a lack of appreciation of the need for specific training for administration in the field of vocational education, may be mentioned confusion as to relative responsibilities, failure to recognize function, and failure to distinguish between specific and coöperative responsibilities. In all these cases the confusion may be traced back to the fact that experience in the field has advanced beyond the incorporation of that experience into organized training courses.

Eliminating Confusion and Lack of Appreciation. — Whenever confusion of thinking and lack of functional appreciation exist, it is the responsibility of the administrator to see that these situa-

tions are corrected and that these confusions are cleared up. This is a responsibility that can not be delegated to anyone else. The degree to which such confusion and lack of appreciation actually exist in an organization is largely a measure of the degree to which the administrator himself has failed in his task. If he is himself confused in his thinking or does not possess the necessary appreciation, and is unable to correct his own shortcomings in this respect, he can not hope to develop and improve the members of his staff.

Two Specific Responsibilities. — In this connection there are two very specific situations which all administrators must face. The first is a lack of understanding or of appreciation on the part of subordinates as to the ultimate responsibility of the administrator. Many subordinates do not fairly possess this appreciation. They do not realize that the administrator is ultimately responsible to his superior authority although they may be immediately responsible for the discharge of certain functions that have been delegated to them. Where an administrator finds that this condition exists, he has only himself to blame, both for his failure to recognize the situation, and for his failure to take steps to correct it. The latter he can do only through the use of some educational procedure. In other words, such a situation can not be corrected through the exercise of administrative authority.

The second situation is that which exists when the administrator feels that by delegating a function to a subordinate he relieves himself of all further responsibility for the discharge of that function, whereas, as a matter of fact, he does not. There is a great difference between delegating a function to a member of the staff and then forgetting about it, and delegating the function with an appreciation of one's ultimate responsibility for its efficient discharge. Much administrative difficulty and confusion may be avoided if, on the one hand, the administrator does not undertake to discharge functions that should properly be delegated to members of his staff, and if, on the other hand, he does not free himself from the ultimate responsibility for knowing the degree to which these delegated functions have been properly discharged.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Classify the following list of responsibilities under the headings "administrative" and "supervisory":

a. Passing upon the suitability of a textbook.
b. Employing a teacher.
c. Promoting a teacher.
d. Deciding whether or not a given pupil is capable of profiting by the instruction.
e. Determining the character of equipment.
f. Determining the cost of equipment.
g. Establishing minimum employment qualifications for employment of teachers.
h. Determining the maximum size of an instructional group.
i. Determining the conditions of admission to a given course.
j. Determining the length of a school day.
k. Dealing with the question of morale of teachers.

2. A supervisor recommends that a certain text be used; the administrator decides that another text shall be used. The supervisor maintains that since he is responsible for the character of the instruction, it is his responsibility to determine the character of the instructional material. The administrator responds that since he is ultimately responsible the question is up to him. Who is right?

3. Would the situation change if the difficulty arose over a question as to (*a*) the equipment, (*b*) character of housing, or (*c*) character of the supplies to be provided?

4. In an apprentice course a certificate of ability is granted at the close of the course. Who should sign the certificate, the supervisor or the administrator?

5. How would you distinguish between a function and a pay roll job in terms of definitions?

6. As between supervisory and administrative functions, which is the more important with regard to the efficiency of a program of vocational education? Why?

7. Name six responsibilities for which a supervisor has no "alibi" in case he is unsuccessful in his work. Do the same for an administrator, considering both functionally.

8. Name several cases in which both the administrator and the supervisor would have a "perfect alibi" in case things went wrong.

9. Is the procedure leading up to the official employment of a teacher to be classed as personnel management or general administration?

10. Make a list of administrative responsibilities that affect the improvement of a vocational program.

11. A piece of equipment is found to be defective after its purchase. Who is responsible, the administrator or the supervisor?

12. A certain course must be discontinued on account of lack of funds. Who is to blame, the administrator or the supervisor?

13. An applicant for a position calls upon the supervisor. The supervisor satisfies himself that the applicant is competent as an instructor, and tells him that he will try to get him a job. Through his contacts with local situations he gets the applicant a job. Has he gone outside of his function?

14. If, out of your own experience, you can recall a case where there was confusion as to relative responsibility in any kind of an organization, describe the situation and the results.

15. As between the coach and captain of a football team, who has administrative and who has supervisory responsibilities?

CHAPTER II

QUALIFICATIONS OF AN ADMINISTRATOR

Preliminary. — As in the case of any other definable piece of work, the efficiency of the work of an administrator of vocational education will depend largely upon his own personal qualifications, and upon his possession of such specifically functioning information, experience, and training as constitute what may be called the functioning content of his job. Before entering into a detailed discussion of administrative problems and procedures, it seems desirable to indicate the qualifications that should be possessed by an administrator of vocational education.

Types of Administrators of Vocational Education. — When the work of an administrator of vocational education is considered from the standpoint of the pay roll job, a considerable number of types are found. In general, however, these typical situations can be referred to one of three general classifications, or types of job specifications. The first type of administrative pay roll job is characterized by the fact that it deals only with vocational education. This group may be subdivided into two minor groups, in one of which the administrator deals with but one form of vocational education, whereas in the other he is ultimately responsible for a program including two or more forms of vocational work. An illustration of the first case occurs where the administrator's work deals entirely with one of the following: (1) trade and industrial education; (2) home economics education; (3) agricultural education; (4) commercial education; (5) civilian vocational rehabilitation. An example of these specialized types is the position held by a chief of service on the staff of the Federal Board for Vocational Education. An illustration of the second case occurs where the responsibilities lie entirely in the field of vocational education, but are divided between two or more forms of vocational work. As examples of this case may be mentioned the position of director of vocational education in a great majority

of the States, and the pay roll job of director or principal of a vocational school the program of which includes trade and industrial education, home economics education, and perhaps other forms of vocational work.

The second type of pay roll job is characterized by the fact that the administrator is responsible for one or more forms of vocational education and at the same time has responsibilities in the field of general education. An example of this type is afforded by the case of a director of a trade school administering a curriculum which is " split " between a program of vocational education and one of general education. This type is well illustrated also in a rural high school where the principal is in charge of a vocational agricultural department and also is responsible for administering the general school work. Similar illustrations will be found in the positions of a State superintendent of public instruction, responsible for a State program of general education and also of vocational education; the principal of a cosmopolitan high school; and an assistant superintendent of schools, detailed to vocational educational work as a part of his administrative responsibilities.

Qualifications of an Administrator. — For convenience in discussion, the type of administrative position in which the responsibility is entirely confined to one or more forms of vocational education will be designated as type *A*. The typical administrative position in which the incumbent is primarily responsible for general education but has some responsibilities in the field of vocational education will be designated as type *B*. In the discussion of qualifications, no attempt will be made to distinguish between delegated and directly assumed responsibilities, since delegation may change the emphasis but does not release the administrator from ultimate responsibility to his superior authority.

Before taking up the question of detailed qualifications, the reader should clearly understand that the discussion deals entirely with the administration of vocational education of less than college grade, and in general deals with that type of vocational education which is contemplated under the National Vocational Education Act and the various State acts supplementary thereto. Although commercial education is not included in the scope of

these acts, the discussion does take into consideration vocational commercial education of a similar type and grade. For the most part, the discussion relates to such administrative positions as State director of vocational education, local director of vocational education, principal of a vocational school, and certain other positions of a similar character.

There is given in Table No. 3 a summary which the reader will find convenient for reference in following the subsequent discussion.

General Education. — An administrator of vocational education must associate, to a considerable degree, with those who are engaged in other forms of educational work. At the present time, in educational circles, the possession of academic certification of various grades, as commonly represented by college degrees, carries a distinct value which functions as a factor in securing employment and in social and professional recognition. This value appears to exist without regard to the actual amount of general, liberal, or cultural education — as distinguished from professional training — which forms a necessary minimum work-asset for an administrator of vocational education. Social and employment considerations, therefore, under present conditions, make desirable a fair degree of academic recognition.

Unfortunately, however, the academic degree, which originally represented attainment in pure scholarship, is now more or less confused with degrees that represent actual professional training. Hence, the mere possession of an academic degree, regardless of the particular way in which that degree was earned, is, of necessity, all too commonly assumed to indicate the possession of satisfactory occupational equipment for administrative work in vocational education, and, as a matter of fact, in general education as well.

In the same way, the possession of any form of academic standing, from a high school diploma to a doctor's degree, is all too commonly assumed to insure an amount of general education which could have been secured in no other way. To-day, no thinking person fails to recognize the fact that there is more than one way to obtain a general education, and that there is more than one way by which an individual may obtain the training that functions on any given job. In spite of the general recognition of

TABLE No. 3

Qualifications of an Administrator Responsible Only for Vocational Education (Type *A*)

Qualifications	Minimum Amount	Why Needed	Commonly Accepted Evidence of Possession
General education.	Adequate to enable him to associate on a basis of equality with those with whom he must work.	Social standing with the group with which he must work. (An indirect job asset.)	Graduation from an institution of college grade.
Professional: *a*. Educational. *b*. Supervisory. *c*. Administrative.	*a* and *b*. Ability to recognize and evaluate educational procedures in terms of a given teaching situation. *c*. What actually functions on an administrative job.	*a* and *b*. Because he must evaluate work of his technical subordinates. (Supervisors, department heads, and teachers.) *c*. The information which would be represented by the *T* value on his job. (Richards' formula.)	*a*, *b*, and *c*. The degree of M.A. in education.
Experience: *a*. Teaching. *b*. Administering. *c*. Vocational.	*a*. Enough to give appreciation of good and poor teaching and of the conditions under which teaching is carried on. *b*. Enough to enable him to act subconsciously in applying a standard to administrative processes. *c*. Enough to get an appreciation of the general conditions and standards of at least one vocation.	*a*. In order that he may act intelligently in dealing with situations involving teaching ability. *b*. Because he needs an occupational command of the occupation of administration. *c*. Because he is dealing with vocational education and needs some practical contacts and experiences in order to administer intelligently.	*a*. One year of successful experience as a teacher. *b*. Evidences of having successfully handled an administrative job of lower grade. *c*. None at present.
Personal factors: *a*. Leadership. *b*. Intelligence. *c*. Presence.	*a*. The more the better. (There is no minimum.) *b*. Should belong to the group possessing superior intelligence. *c*. Average.	*a*. Because he must be a leader. *b*. Because the job requires intelligence above the average. *c*. Because any given community has certain standards which it expects an administrator to meet. These vary with the community.	*a*. Evidence of leadership on a similar job.

this fact, the standard minimum acceptable evidence of adequate general education for any administrative position in education, including vocational education, is graduation from an institution of college grade.

Professional Training. — By professional training is meant any kind of education and training that can be shown to function in the efficient discharge of administrative responsibilities. Professional training includes the acquirement of certain kinds of appreciation and should result in the possession of certain functioning " doing " abilities.

There have been brought together, in Table No. 4, certain items which it is believed should be included in the equipment of an administrator who is concerned solely with the administration of vocational education. This table is presented, not as a complete analysis, but purely for its suggestive value.

The various items given in Table No. 4 also tend to fall into three groups which may be classified respectively as educational, supervisory, and administrative. It also appears that certain doing abilities apparently deal with the technique and art of teaching. This does not mean, however, that the administrator should possess the detailed teaching technique necessary for supervisory work, but merely that he should be able to " size up " in a general way the character and the efficiency of the instruction, and that he should possess a sufficient apperceptive base to coöperate intelligently with the supervisor in the discharge of his supervisory functions.

Amount and Type of Experience Required for Efficient Administration. — In the opinion of the authors, as based on their observation and experience, an administrator of vocational education, in order to be adequately equipped for meeting the demands of his job, should have had at least three types of experience: (1) experience in vocational teaching, (2) experience in administrative work, and (3) participating experience of a vocational character.

The amount of vocational teaching experience required should be sufficient to give the administrator a general knowledge of the special teaching conditions that exist in vocational education, in order that he may have a sympathetic and intelligent attitude

TABLE No. 4

PROFESSIONAL EQUIPMENT OF THE ADMINISTRATOR (TYPE *A*)

Information	Appreciation	Doing Ability
1. As to general school organization and administration. 2. As to legislation, laws, State plans, and rules and regulations under which he must work. 3. As to policies of the superior authority. 4. As to statistical methods. 5. As to the organization and administration of vocational education. 6. As to educational standards and tests. 7. As to educational psychology. 8. As to the history of educational successes and failures. 9. As to social and biological sciences as they are related to education. 10. As to educational devices and as to their relative value in general and vocational education. 11. As to administrative devices and procedures in both general and vocational education.	1. Of the relation of vocational education to the entire social educational program. 2. Of the economic and social values of vocational education. 3. As to the social values of general education. 4. As to the distinction between the administrative and supervisory functions.	1. In personnel management. 2. In promoting vocational education. 3. In organizing vocational programs. 4. In presenting his program to others. 5. In making decisions. 6. In securing and maintaining leadership. 7. In presenting propositions. 8. In coöperating with others and in securing coöperation from others. 9. In evaluating the work of others. 10. In giving unorganized instruction. 11. In utilizing administrative devices and procedures, and in creating new ones when necessary. 12. In handling finances. 13. In promoting general efficiency. 14. In recognizing the psychological moment favorable to any given action.

toward vocational instruction and vocational teachers. This attitude can not be acquired by an administrator unless he has "been through the mill" himself. Experience secured in general education exclusively, no matter how varied or extensive, will not serve this purpose, because of the very distinct differences that exist between general and vocational education, in the character of the objectives, in the various characteristics of the groups to be served, and in the general working conditions. In certain typical cases where administrators have unintentionally but effectively interfered with the efficiency of vocational educational

programs, the predominant cause is to be found in the fact that the administrators' decisions were based upon experience limited to the general educational field.

An example of such a case is an administrative decision to the effect that, since a teacher of Latin can effectively handle a class of thirty pupils under the working conditions under which instruction in Latin is carried on, an instructor in a course in automotive repair work can equally well handle a group of thirty boys in the automotive repair shop.

The best situation will probably be found where a certain amount of preliminary experience in general education, in some capacity, has been followed by an adequate experience in teaching in vocational education, and this, in turn, followed by successful experience in administration or supervision, or both, in each of these fields.

If the experience in vocational education serves no other useful purpose, it will contribute materially to the making of correct decisions as to what ought not to be done in many cases.

No definite limits as to time can be suggested, but, in all probability, a period of from three to five years represents a safe minimum which should be met or exceeded in setting up any standard.

The amount of administrative experience can not be defined in terms of time. It should be sufficient to enable the administrator to act subconsciously when faced with an administrative problem. In other words, when confronted with any given problem he should not be conscious of the fact that he is an administrator and is therefore making an administrative decision. Ordinarily, according to opportunity and chance, an administrator comes up from a relatively small administrative position to a larger administrative field and progresses through a series of gradations until he reaches the limit of his abilities. The commonly accepted evidence of administrative ability is measured in terms of years of administrative experience alone, but this is an extremely unreliable standard. Much better evidence can be secured by ascertaining the character of the administrative responsibilities which have been previously discharged. For example, one may question the value of a formal experience in general education as an asset to an

administrator of vocational education of the *A* type, which is now under discussion. This general educational experience should be regarded as of some value, but an experience gained entirely in this way does not constitute a very satisfactory or complete asset for the administrator who has to deal only with vocational education. Probably a fairly safe statement, in terms of the present acceptable evidence of ability, would be that the candidate for an administrative position of the character discussed here, such as that of a State director, or a local director of vocational education, should have a total of five years' experience, including at least two years in vocational education.

While the foregoing statement calls for at least two years of administrative experience in the field of vocational education, it does not mean that at least three years should be expected in the field of general education. As a matter of fact, the entire five years might perhaps be more profitably spent in the field of vocational education, since all of the typical administrative problems arising in general education are likewise encountered in the field of vocational education, together with a great many others which are peculiar to the vocational field.

Participating Vocational Experience. — The participating vocational experience of an administrator in vocational education should be sufficient to enable him to work in close coöperation with occupational groups, to work intelligently with supervisors and teachers, and to possess an understanding of the conditions under which occupations are generally carried on. From the standpoint of the administrative function it is not necessary, although it is desirable, that the administrator should actually possess " doing " ability in any specific wage-earning occupation. Such actual " doing " ability on the part of the administrator is even less necessary than in the case of a supervisor.*

Personal Factors. — As in all other fields of endeavor, there are certain personal factors which are largely intrinsic in their character and which can not be created by any known educational procedure, although an individual possessing these intrinsic

* For a full discussion of this qualification from the standpoint of the supervisory function, see Chapter IV of the book on " Supervision of Vocational Education," by the same authors.

qualifications may, through educational training, be aided in developing them and in utilizing them efficiently. These personal factors, in general, fall into three groups:

1. Leadership.
2. Intelligence.
3. Presence.

The ability to secure and maintain leadership is something that can not be made evident except through actual demonstration. Evidence of its possession can not be expressed in quantitative terms, nor can it be determined on the basis of length of experience as such. All that can be said is that the more any individual who is responsible for the work of a group possesses this very essential characteristic, the better for him and for the work of the group.

Evidently, acceptable evidence of its possession can not be secured in terms of length of years of previous service. It can only be predicted upon the basis of demonstrated ability in positions previously held, without regard to the question of time or to the special character of such previous positions. In fact, the qualities that make for leadership may have been exhibited by the individual in some department of activity lying entirely outside of the educational field.

At the present time, the most commonly accepted evidence of the possession of these qualities is evidence of demonstrated executive ability. In many cases it is probable that no more reliable evidence can be secured; leadership ability and executive ability, however, are not the same thing even though often so regarded. One serious difficulty in securing more reliable evidence of an individual's capacity for leadership is that in many cases the results of good leadership appear concretely in the work of others and seem to be due to their ability, whereas, as a matter of fact, these good results have been brought about by able leadership through the use of indirect objectives.

Administrative and Executive Ability. — An executive is essentially one who executes, and an administrator may be regarded as an executive plus. This is not the place to discuss in detail the elements that make up this "plus." It is perhaps sufficient to point out, as the reader may readily recall, that there have been

numerous individuals of marked executive ability who could not be regarded as showing marked administrative ability, since they obviously lacked some particular element or elements which go beyond the requirements of straight executive work. As a matter of fact, the executive function falls within the field of the administrator's job, but it is not the only function within this field. This statement is especially true in the case of the leadership function. There is very little difficulty in calling to mind, out of one's own personal acquaintance, individuals who show marked leadership qualities, and who at the same time show little or no evidence of executive ability; and it is no more difficult to note similar cases in which the converse is equally true. Hence, the qualifications of an administrator are frequently stated entirely in terms of the executive function, for at least two reasons: first, because it is much easier to secure authentic information with regard to executive ability than with regard to leadership ability; and second, because in this country there has existed in the past a far greater regard for executive ability than for real administrative ability.

So far as the educational field is concerned, the emphasis on executive ability is probably due to the fact that in the past our programs in education have been largely planned and conducted on what amounts to a military type of organization, in which the superior is expected to issue orders and the subordinate to obey orders. This idea has been expressed in the past in the desire to get a teacher who was a " strong disciplinarian "; and not so very long ago it was very common to find a school board appointing a new superintendent of schools on the sole basis that he was a " strong executive." ! With the more modern conception of the function and organization of education, the emphasis upon pure executive ability is gradually giving way to a recognition of the importance of real administrative ability, which includes not only executive ability, but also other factors, such as leadership and managerial ability — qualifications which distinguish the good administrator from the mere executive. This change in attitude can not fail to be reflected more and more in organized training for administration, and in the character of the evidence that will be accepted as proof of the possession of administrative ability as distinguished from pure executive ability.

Administration and Job Intelligence. — If the discussion is limited to administrative ability, it is evident that there can not be too much job intelligence. If consideration is given to executive ability alone, it is a question whether a very high degree of intelligence is commonly required, since normal intelligence is quite adequate for the discharge of normal executive responsibilities. It requires, however, more than normal intelligence effectively and fully to discharge administrative responsibilities.

At present the only acceptable evidence of what may be called administrative job intelligence is the possession of academic certification, as indicated by a college degree. This fact is illustrated by the common practice of basing salary schedules for administrators in whole or in part upon the possession or acquisition of such degrees.

It must be admitted that, at the present time, there is no measure of administrative job intelligence comparable to the intelligence test for measuring intrinsic intelligence. The acceptance of a college degree has the advantage that it is of a statistical character. As a matter of fact, the same points could be raised here which were raised earlier in this chapter with regard to the confusion of thinking between the possession of a college degree as such, and actual evidence as to what that degree really means in terms of special training and ability to meet the demands of a specific educational administrative position.

Administration and Presence. — The old idea of "presence" was one of a pompous individual in a frock coat and a high hat. The term "presence," as it was then used, did not imply any particular ability, but was merely a conception of what any individual in a public capacity ought to look like. The term "presence," as it is used by the authors, however, refers to those qualities of personal appearance and individual characteristics which either aid or hinder an administrator or any other individual in successfully discharging his responsibilities, whatever they may be. It practically means the sum of those characteristics, including personal appearance, which enable the individual to make a good first impression upon people. Personal appearance counts the most on first contact, for the simple reason that other characteristics do not begin to appear until some period of personal contact

has elapsed. For example, all other things being equal, the public lecturer, appearing before a new audience, is at a distinct advantage if he is not undersized or oversized, if his voice is pleasing, and if he has no notable physical abnormalities. It is equally true that he will be at an advantage in proportion as his manners are those that are expected by his audience. A scientific expert appearing before a group of scientific experts should not, under these conditions, resort to oratory, or oratorical gestures, both of which may well be expected of a minister before his congregation, or of a political speaker before his audience of political followers.

The question of dress is one of suitability for the particular occasion. This has been summed up in the statement that an individual is properly dressed when his dress does not attract attention away from himself or the things that he is saying. In other words, he should not be overdressed or underdressed from the standpoint of the kind of clothing worn. The characteristic of not irritating people is a distinct asset. It is also an asset to any individual to be able to give the impression that he knows what he is talking about. Another valuable characteristic is the ability to adjust oneself to the atmosphere or environment in which one finds oneself, or, in other words, to possess adaptability.

Probably the two characteristics that are most valuable in dealing with people are the ability to give the impression that one believes in one's job, and the ability to give the impression that one is "on the square." It should be noted here that these characteristics represent the ability to produce certain impressions in the minds of other people. It does not necessarily follow that the impressions produced are in accordance with the true character of the individual producing them. A high-powered salesman of "wildcat" mining stock may not actually be "on the square," but one of his greatest assets is the ability to convince his customers of his good faith. The same reasoning is equally true with respect to "believing in one's job" and "knowing one's work." In the long run, people are very sure to discover whether or not the facts correspond to their belief; and a man's real personal characteristics, whatever they may be, will ultimately be correctly evaluated by those with whom he is continuously in contact.

Value of Commonly Accepted Evidence. — It is obvious that the commonly accepted evidence is not the most desirable kind of evidence that might be considered in judging the qualifications of a candidate for an administrative position, or, in fact, for any position. The kind of evidence that is commonly regarded as acceptable is so regarded for several reasons. First, there is always a tendency in favor of evidence that can be verified on the basis of facts. Second, there is a further tendency toward the acceptance of evidence that can be expressed statistically. These facts tend to throw acceptable evidence into a field lying outside of attitudes, conceptions, capacity for leadership, capacity for constructive thinking, and judgment. These qualities are, and by virtue of their nature must be, largely matters of judgment on the part of the superior authority or employing official; hence, there is a reluctance to give weight to them, because of the unreliability of judgment based upon early contact, because of a realization that such judgments are only reliable after long periods of contact, and because grave doubts may exist as to the reliability of another's judgment. Granting, therefore, that for practical reasons, the general character of acceptable evidence is as previously stated, a question can fairly be raised as to the relative advantages and disadvantages of such evidence.

Advantages of Commonly Accepted Evidence. — One advantage of the type of evidence commonly accepted, is that, on the theory of probabilities, it automatically excludes the obviously unfit. If, for example, it is said that an applicant for an administrative position must have had at least three years' experience in a supervisory position, the employing authority can go upon the theory that, on the whole, those who have had supervisory experience are more likely to have certain desirable equipment than those who have not had that experience; and, in general, this is undoubtedly true. While the above statement holds on the theory of probabilities, it is equally true that in individual cases a very desirable personality may be entirely eliminated in this way, and an undesirable individual accepted. This is the danger in setting up any hard and fast specifications.

Aside from the theory of probabilities, the use of such evidence as is now commonly accepted unquestionably acts as a very

distinct defense for the employing administrator against charges of "playing favorites," and against political pressure. Its use is also a distinct time-saver for the appointing official, since it relieves him of the necessity of spending much time in arguing with candidates and their friends. In the same way it is a trouble-saver, because, when it is known to the public that certain evidence of fitness is required, individuals who know that they can not bring forward such evidence make no attempt, as a rule, to get the job.

Evidently these protective functions will be effective in proportion as the acceptable evidence can be made statistical in character; and since statistics are the easiest things to secure and use, especially if they are properly selected, they can be readily applied in dealing with masses of people.

There is no question, therefore, as to the fact that the type of evidence commonly regarded as acceptable, offers very distinct advantages in the selection of persons to fill administrative positions. At the same time, it must also be recognized that the acceptance of such evidence offers very distinct disadvantages.

Disadvantages of Commonly Accepted Evidence. — It may be stated that the commonly accepted evidence never gives any assurance that a specific individual, whose qualifications are evaluated in this way, is best equipped for the job. In the first place, a number of characteristics, very seriously affecting success, are not recognized at all, and, therefore, the acceptance of such evidence creates the possibility that the individual selected is not fully equipped, since all of the functioning factors have not been evaluated. It must be admitted that, wherever commonly accepted evidence is used, especially when it is of a statistical character, there is a tendency to employ individuals of average capacity with regard to the particular demands of the job in question. It is a well-known fact that while any number of pay roll jobs may carry the same title, no two of these jobs are exactly the same in the demands that they make upon the incumbent. Ordinary types of acceptable evidence are based upon a certain conception or ideal of a standard pay roll job, such as that of a city superintendent of schools, or a State director of vocational education. Those who depend upon such methods of selection

must necessarily ignore specific individual job demands. Hence, as a result, individuals are secured who are 70, 80, or 90 per cent equipped to meet the special demands of the particular job for which they are employed.

For example, consider the position of a superintendent of schools in any city with a population of 50,000. In this case it would be easy, in terms of acceptable evidence, to determine whether or not a given applicant was qualified, or to determine the degree to which he was qualified. Suppose, however, that there was added to the above statement the information that the city was a residential one inhabited essentially by well-to-do business people, and that another city of the same size was a purely industrial community, largely inhabited by relatively poor people working for wages. No discussion is required to show that the actual demands of these two administrative positions, both of which carry the same pay roll title, are different in many respects.

A third disadvantage of the commonly accepted evidence, as now used, is that it can be expressed in terms of organized training, and even in terms of formal educational training, which introduces a certain danger of over-emphasizing this particular factor. This disadvantage leads to three dangers: first, that the acceptable evidence which is included in any set of qualifications will concentrate around this particular type; second, that the evidence will be over-emphasized; and, third, that other typical factors will be minimized or entirely disregarded. Probably the foregoing statements are more particularly true in the administration of vocational education, with regard to occupational experience *versus* formal educational equipment.

As a result of the foregoing discussion, it appears that the best way to get the best-qualified administrator is to work entirely on an individual basis and to select the candidate who is, in the judgment of the appointing official, most likely to be able to meet the special job demands. This procedure is essentially the practice followed in industry, but it is followed to a much less degree in educational work.

There are several reasons for this situation. In the first place, in typical industrial situations it is as easy to " fire " as it is to " hire," whereas in educational work it is easy to " hire " and very

difficult to "fire." Again, in most industrial situations, there are very definite standards of performance, so that it does not take a very long period of time to ascertain whether or not the appointee can fill the position satisfactorily. In educational positions, on the other hand, there are really no standards of performance, and even the formation of an accurate judgment on the part of the superior official requires a long period of time. Moreover, education has many pay roll jobs constituting what may be called standard positions, such as the principal of a school, a department head in a high school, and the principal or director of a vocational school. In this respect, the situation is very similar to that existing in the army. In industry it is not particularly difficult to abolish a position in terms of the pay roll, and to create another position with similar duties under another pay roll title; this is a much more difficult thing to do in educational work.

One other factor remains to be pointed out. In so far as the recommending or appointing official is himself an administrator, he tends to do exactly what everybody else does — that is, he tends to repeat his own experience. His own experience, at least in most cases, has been that he secured his position on the basis of certain kinds of acceptable evidence, whatever that evidence happened to be at the time of his appointment; and he naturally tends to accept the same sort of evidence, at the same value, as was the case when he himself was under consideration by the superior appointing authority.

Real and Pseudo Evidence. — For the purpose of this discussion, pseudo evidence may be defined as evidence which on its face looks reliable, but which actually is not reliable. Reference has already been made in this chapter to the fact that the mere possession of a college degree is not an absolutely reliable indication of the possession of certain functioning training. In the same way, the time that an individual has been employed in an occupation is very little indication of the value of his occupational experience. Unless the character of that experience, the degree of success or failure, and the special abilities that were called forth by the exigencies of the job are known, the mere statistical facts as to the length of that experience really amount to very little as

real evidence. As a matter of fact, most of the evidence now regarded as acceptable partakes largely of the character of pseudo evidence. One of the important results that might be accomplished by research and study is the discovery of some way by which more genuine evidence of administrative ability could be secured and evaluated under more practical working conditions. This, however, is a subject which has received but little consideration.

Limitations on Training for Administration. — If Richards' formula be applied to the administrator's job, and if M in the formula represent skill in dealing with situations, T the immediately functioning information necessary, and J the job judgment, then $E = M + T + J$. It is evident that the T value can be taught in an organized way. It is also possible to give a certain amount of training in J under institutional conditions by the use of the case method. This amount and kind of instruction and training practically sets the limit to what can be effectively given under ordinary institutional conditions. Theoretically, it should be possible to give actual practice corresponding to the function of practice-teaching in a teacher-training course; but, up to the present time, provision for this training on the " doing " level does not seem to have been possible under ordinary training conditions. There would seem to be no reason why any institution offering training for administrative work in education could not make it possible for trainees to secure actual practical experience in dealing with administrative problems through some coöperative arrangement with school systems, as has been done by certain engineering institutions with a similar objective in mind.

At present the only method by which the necessary apperceptive base can be secured appears to be through actual experience in an executive or administrative capacity, or, if that be not possible, through a similar experience in positions of a closely related character, previous to undertaking the organized training courses. This fact indicates that training courses intended to prepare for administrative work in vocational education should be on a graduate school basis, and that such graduate work should not immediately follow the taking of the baccalaureate degree, but that between the college and the graduate school there should be

a period of participating experience in the occupation of administration.

Those intrinsic qualifications that function in the successful discharge of any kind of administrative responsibility can not be gained through any organized educational procedure. The ability to make decisions and the tendency to avoid making them are inherent characteristics which no amount of education will change. Possibilities of formal training for administrative work, under present average conditions, seem to require not only that the training should be on a graduate basis, but also that it should be given to a group selected on the basis of presumptive evidence of the possession of certain necessary characteristics, and that membership in the group should be limited to those who have shown, through successful experience in the field, that they possess the necessary intrinsic characteristics.

Present Sources of Administrators. — There are to-day two conceptions or theories as to the proper source from which administrators should come; and it may be said in passing that these two theories are in evidence in other than educational fields. According to the first theory, preparation for any given position should be entirely carried out through organized instruction and training given in an institution of higher learning. This conception may be designated as the " ready-made " theory. According to the second theory, the training for a given position is to a considerable extent the result of the experience and training secured through actual successful work in a series of inferior positions of gradually increasing grade, supplemented by such additional equipment as can be given under institutional conditions.

According to the first theory, an educational administrator would receive all of his training in an institution and would come out completely equipped for the job; hence the expression " ready-made." According to the second theory, he would come up through a series of positions which, for example, might be those of an instructor, a school director or principal, a local director of vocational education, a State supervisor, or a State director. This series of progressive experiences has been designated as " coming up through the mill." At the present time, so far as the authors are aware, the second theory is the only one that has been

applied in practice. If the preceding discussion of the limitations of organized training is sound, it would seem as if the successful application of the "ready-made" theory, in the case of the training of administrators of vocational education, would, to say the least, need to be deferred for a considerable period of time.

The Type *B* Administrator. — Throughout this chapter the discussions have referred entirely to administrators of the type designated as *A*. Reference was made at the beginning of the chapter to the type *B* administrator whose responsibilities are divided between vocational education and general education. In the opinion of the authors, everything that has been said with regard to the type *A* administrator will apply equally well to the type *B* administrator so far as he has functions in the field of vocational education. As this book is not primarily concerned with general educational administration, and as there is ample reading material available with regard to administration in that field, it is unnecessary to undertake an extended discussion of this second type of administrator. The important fact to keep in mind is that, in making assignments to positions having joint responsibilities in vocational education and general education, the appointing official should give consideration to the same acceptable evidence as has been discussed in this chapter.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Make a list of eight characteristics which should be possessed by a good executive, and in a parallel column make a similar list of additional characteristics which would make a good administrator of that particular executive.
2. Do you consider the terms "academic intelligence" and "administrative intelligence" synonymous? If so, why? If not, why not?
3. Which of the above kinds of intelligence is the more important to the vocational program?
4. Did administrative ability function in the "little red schoolhouse"? If so, in what way?
5. What does a college degree mean?
6. Compare the relative values of two kinds of acceptable evidence with regard to the same qualifications.
7. Under what conditions, if any, could the use of acceptable evidence be dispensed with by an employing official?
8. Outline what you consider to be the essential subjects for graduate work in the administration of vocational education.

9. *A* is an administrator of vocational education; *B* is an assistant superintendent of schools assigned to vocational education as a part of his administrative duties. Make as complete a list as you can of the responsibilities which *A* would need to discharge and which *B* would not need to discharge, assuming all other working conditions to be the same.

10. Prepare an argument for or against either of the two theories with regard to the source of administrators, as described in the text.

CHAPTER III

STAFF ORGANIZATION

Preliminary. — The word "staff," as originally used, meant something on which a person leaned while progressing from one point to another. As used in administration, the word retains at least a part of its original meaning, since a staff is the supporting service to the administrator. He is responsible for the whole program, but most of what he accomplishes is accomplished through the duties performed by the members of his staff. Hence, if his staff is composed of qualified individuals and is well organized, it is his greatest asset; and if it is improperly organized or is made up of unqualified people, it is his greatest liability. As a matter of fact, the administrator stands or falls very largely on the quality and organization of his staff. For this reason, the staff organization will be discussed in considerable detail.

Type Problems for Which Organizations are Necessary. — Whatever may be the details of the problem in staff organization, there must be taken into consideration two variables, volume and function. By volume is meant the total amount of work that must be done. By function is meant the kind of work that must be done. For example, the addition of new high schools would call for the employment of more principals in a city school system. This increase in the number of principals would not add to the number of functions of the superintendent of schools but would simply mean an increase in volume of work. However, if vocational education were introduced into the school system, its introduction would immediately create additional functions in the administrative staff, entirely independent of any question of volume. As an example, suppose that a high school has been converted into a vocational school. This may mean one high school less and a vocational school added to the organization. It would not add to the volume of work to be performed by the

superintendent of schools, but would obviously add certain new functions.

When the States accepted the benefits of the National Vocational Education Act, in 1917, both volume and function were increased, and this situation was further changed in 1920, or at a later date, by the acceptance on the part of certain States of the National Act for the Rehabilitation of Disabled Civilians. There are, therefore, three type problems in staff organization:

1. To deal with an increased volume alone.
2. To deal with increased functions alone.
3. An organization to deal both with increased functions and with an increased volume.

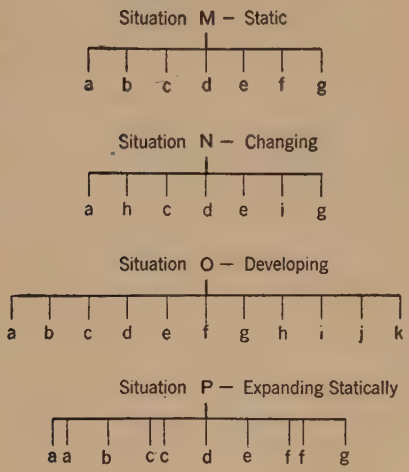
Typical Situations. — There are four typical situations which may confront an administrator with regard to staff organization, regardless of which of the three type problems is to be solved. (1) The situation may be static in the sense that the staff needs no modification at that particular time; (2) the staff personnel may require changing without any change in volume or function; (3) the staff may need developing with regard to either volume or function, or both; and (4) the staff may simply require what may be called static expansion with regard to volume alone. These four typical situations are illustrated in Diagram No. 1.

Phases of Organization Programs. — It is evident that at different times an administrator may be faced with various problems in connection with staff organization. In certain relatively rare cases he may have to initiate an entire program of staff organization, as frequently happened during the World War. In other words, he may actually have to create an entirely new staff for a new purpose. In most cases, however, the problem with which he has to deal at any given time is brought about through certain changed conditions which may make possible the expansion of his staff in some way, or may require its contraction or its modification. A different problem may require an improvement in the staff; and under other conditions his chief problem may be that of maintaining his staff "as is" under adverse conditions. In the course of an administrative experience of any length, any of these phases are certain to occur, as various objectives are either

set up by the administrator or are placed upon him by superior authorities or other conditions not under his control.

DIAGRAM No. 1

TYPICAL ORGANIZATION SITUATIONS


Situation M — Static
a b c d e f g
Situation N — Changing
a h c d e i g
Situation O — Developing
a b c d e f g h i j k
Situation P — Expanding Statically
a a b c c d e f f g

Typical Objectives. — Objectives, whether set up by the administrator of his own volition, or imposed or forced upon him, are also typical in their character. Among the more important of these objectives are to effect economy, to make the best use of an increased budget, to meet a changed situation in the most satisfactory manner, to secure more centralization or more decentralization, to secure greater efficiency, and to bring about a desirable change in personnel. Of the objectives imposed upon an administrator in practice, those originating in motives of economy are probably more numerous, and consume more of his time in their accomplishment, than all other objectives put together. This fact usually results in his inability to deal in a satisfactory manner with other problems of greater importance.

There is possibly one exception to the statement just made. Situations have arisen, and will continue to arise, in which the administrator must give considerable thought to the problem of resisting pressure exerted in the endeavor to bring about undesir-

able changes in personnel. Such situations should not arise, but they do. The net result is that many administrators are kept so busy upon economy objectives, and upon objectives having to do with changes in personnel, that they are unable to give sufficient time to other and more important objectives. This is unfortunate but true, and represents a situation which exists in every administrative position and arises from very natural causes. Economy and patronage are two perfectly concrete, non-technical, understandable ideas; but, in education no less than in manufacturing, the securing of increased efficiency, through the best use of increased funds, or other funds available, through a better organization, or through a better personnel, is a problem for the technical expert, and the public does not know any more about improving the technical side of education than it knows about improving the technical side of production. A reduction in the amount of money expended is generally acclaimed as economy, when, as a matter of fact, a greater expenditure might have been more economical. It is gratifying to note that educational staff positions are gradually becoming less subject to official patronage.

Typical Managerial Problems. — Regardless of the special character of the objective or of the reason why a particular objective is under consideration, the solution of the problem requires four steps:

1. An analysis of the situation.
2. An evaluation of functions.
3. The formulation of a plan.
4. The execution of the plan.

If we refer to Diagram No. 1, on page 35, we shall see that the values of the various functions are continually changing as conditions are altered. A function which was exceedingly important at some particular stage of the program may have become relatively less important; it may have been overshadowed by some other function of increasing importance, or may have become a new function in process of development to meet changed conditions. A typical situation of this kind is the change in the relative importance of administration and service as a vocational program becomes stabilized.

Hence, at any given time the functions already in being can be evaluated in terms of the situations as they exist at that time, and the need for the creation of new functions can be determined.

After the situation has been evaluated on the basis of the intensity of the demand from which it arises, and the corresponding importance of functions has been determined, it becomes necessary to devise some plan for meeting the situation as it exists at that particular time, and also to carry out the plan in practice. For example, the plan may call for the addition of a new function, and the execution of the plan may require the setting up of qualifications, the search for the individual who can best meet those qualifications, and possibly the securing of his employment by the superior authority.

As an illustration of the manner in which these problems may work out in practice, there is given in some detail a description of the solution of an actual administrative problem by one of the authors. The problem originated in a change in personnel due to a resignation, coupled with an economy objective and the desirability of adding a new function to the staff to meet changed conditions. It was actually worked out in practice as follows:

A Problem in Staff Modification. — Two staff vacancies existed. The general program had changed from one largely administrative to one consisting largely of research, service, and improvement objectives. It was necessary to economize in salaries for personal services. The problem was, therefore, so to modify the staff as to meet the changed emphasis on program objectives and at the same time reduce costs. The manner in which this particular problem was solved is indicated in Table No. 5.

It may be noted that the solution of the managerial problem in staff organization, as presented in Table No. 5, involved the distribution of certain original functions among other pay roll jobs, as well as the addition of the new function as part of the new pay roll job. In making the foregoing changes, the organization was expanded functionally through the addition of a *consulting service* and was contracted in terms of personnel and in the volume of certain other functions. Nevertheless, as a result, the total volume of service was increased under the new organization. The decrease in volume was largely in the amount of statistical service

rendered. This decrease in statistical service volume was overbalanced, however, from the standpoint of the need of the organization, by the development of a consulting service as a new function.

TABLE No. 5

SOLUTION OF MANAGERIAL PROBLEM IN STAFF REORGANIZATION

Original Situation			Modified Situation		
Old Pay Roll Jobs	Salary	Original Function	Desired Function	New Pay Roll Jobs	Salary
Editor and statistician.	$4000	Editorial; statistical publicity.	Editorial, publicity, general consulting.	Editor and educational consultant.	$4500
Specialist in industrial education.	$3600	Research; service in part-time education.			
Chief clerk.	$3000	Office administration.	Office administration; statistical.	Chief clerk.	$3250
Printing clerk.	$2400	Preparing copy for printing.	Preparing copy for printing; assistant editor.	Assistant editor.	$2500

Evaluation of the Functioning Factors. — The functions involved in the modification of the program, as described in Table No. 5, were statistical, editorial, publicity, research in part-time education, and a general consulting service. The relative values attached to each of these functions in both the initial organization and the final organization are indicated in Diagram No. 2.

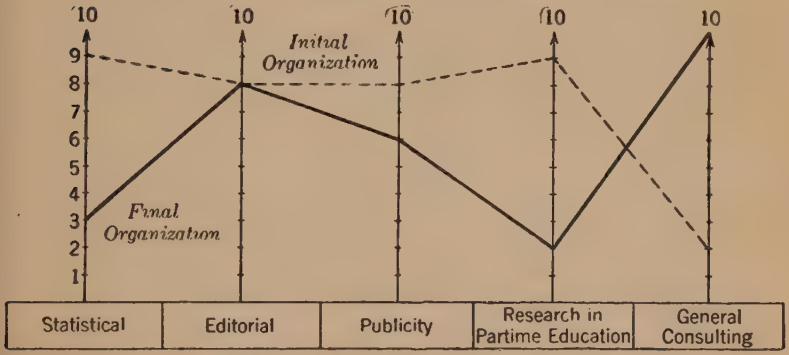
The final change in the organization was accomplished with accompanying changes in expenditure, and resulted in an organization better adapted to meet the situation than was the initial organization, which had been established on the basis of the need as of some five years previous.

Execution of the Plan. — The situation to be dealt with, as indicated in Diagram No. 2, merely represented the decision of the administrator as to what he desired to bring about. There yet

remained the problem of actually establishing the new organization. It was necessary to find some one qualified to discharge the responsibilities of the new pay roll job, and then to induce that individual to take over the job. It was also necessary to make certain that other members of the organization would cooperate in the new program. Modifications of this kind usually require considerable preliminary planning and work, and the actual consummation of any plan may and frequently does require a considerable period of time. In the particular case just described as an example, this period of time extended over several months.

DIAGRAM No. 2

INITIAL AND FINAL EVALUATION OF FUNCTIONING FACTORS



Functioning Information. — The preceding illustration dealt with the evaluation of different factors. It is evident that in order to evaluate these factors in any given case, the administrator must be in possession of certain functioning information. This information he can secure only through a conscious or subconscious process of accepting or rejecting information in proportion as it does or does not function in the evaluation of factors in that particular problem. As an illustration of such an analysis, certain problems are analyzed in the following paragraphs.

In a city of 500,000 people, which is already conducting a program of general education and a program of vocational education it becomes necessary to establish part-time continuation

schools for the employed group between 14 and 16 years of age. What information is required for the proper evaluation of the functioning factors?

The general character of the information that may be involved in securing an answer to the preceding question is indicated in Table No. 6.

TABLE No. 6

SOLVING ADMINISTRATIVE PROBLEMS IN STAFF REORGANIZATION

I. ANALYSIS OF THE PROBLEM

(*A*) Information Necessary	(*B*) Factors to be Evaluated	(*C*) Resulting Decisions
(*a*) Possible local objectives: (1) More general education. (2) Vocational guidance. (3) Vocational education. (4) Social adjustment. (5) Keep children off street. (*b*) Local needs for: (1) Number 14 to 16 years of age out of school. (2) Character of employment. (3) Causes for leaving school. (*c*) Staff resources: (1) Having special individual equipment. (2) Possibility of taking on additional duties. (*d*) Community attitude toward different forms of education. (*e*) Cost of specialists. (*f*) Possible plans used successfully in other places: (1) A bureau organization. (2) Special assistant to director of vocational education. (3) A director of continuation schools. (4) Assistant superintendent. (5) Special classes under general school principal. (6) Director of continuation schools under an assistant superintendent in charge of vocational education. (*g*) Local situations, such as: (1) Attitude of board of education. (2) Condition of budget. (3) Presence or absence of special taxing power. (4) Other enterprises to which the community is already committed.	(1) Greatest value to the community. (2) Utilization of present equipment. (3) Ease of administration. (4) Minimum cost. (5) Maximum value of employed group. (6) Service to the employer. (7) Personal advantage to the administrator. (8)Educational politics. (9) Efficiency of various plans. (10) Local situations. (11) Cost of different ways of reorganizing the service.	The decision is a matter of personal judgment based upon the administrator's evaluation of any or all of the factors. Assuming that the administrator bases his decision on a high valuation of factors (1) and (5); that objectives (2) and (4), as given in column (*A*), have been accepted; that none of his present staff is satisfactorily equipped to carry out the program, a functional organization is best, and one or more satisfactorily trained persons should be added to the staff and placed in charge of the program.

II. Making and Executing Plans

Plans	Reorganization of Staff	
	Present Pay Roll Jobs	Pay Roll Jobs with Plan of Reorganization
Selection of the plan to be used is also a matter of personal judgment and based upon local conditions. On the basis of previous assumptions, it would appear that a safe and satisfactory plan of organization could be set up by placing a director of continuation schools under an assistant superintendent in charge of vocational education.	Assistant superintendents. Director of vocational education. Special subject supervisors. Principals of schools. Attendance officers.	Assistant superintendents. Assistant superintendent in charge of vocational education. Director of continuation schools. Supervisor of continuation schools. Principals of continuation schools. Special subject supervisors. Principals of schools. Vocational advisers. Special attendance officers.

An Illustration of Another Problem. — The situation which recently arose in the Territory of Hawaii, owing to the acceptance by the Territorial Legislature of the benefits of the Vocational Education Act, may be taken as an illustration of another problem. The problem may be stated as follows: Given a staff organized entirely for the supervision and administration of general education, and the injection into the general program of a program of vocational education, how can the staff best be reorganized? The organization, as it existed, included the following pay roll jobs:

1. Superintendent of public instruction.
2. Assistant superintendent of public instruction.
3. Assistant superintendent in charge of the Japanese Language Schools.
4. Six supervising principals, corresponding to county superintendents.
5. High school principals.
6. Elementary school principals.
7. Four directors of vocational education functioning in non-vocational agriculture, non-vocational trades and industry, and non-vocational home economics, all of whom were graduates of agricultural colleges.

Among the possible plans for reorganization were the following:

1. A dual organization, with separate control of general and of vocational education.
2. An assistant superintendent with a separate vocational educational staff.
3. A director of vocational education with a supervisory staff.
4. A director of vocational education with county supervisors located in each county, each supervisor being a member of the director's staff.
5. The present organization, retained " as is."

The administrative objective was to secure the most efficient organization, taking into consideration the geographic conditions, at a minimum of cost. After a careful evaluation of all the factors, plan (3), as noted above, was adopted for the following reasons:

1. It provided for the employment of specialists as supervisors in agriculture, trade and industry, and in home economics.
2. It was more economical than to provide specialists in each field on each island.
3. The territorial board of education has direct charge of all public schools and, therefore, the director and his staff would have direct access to all school activities.
4. The plan would dispense with the positions of local directors of vocational education on each island.
5. The plan would permit of one more supervising principal.
6. The plan provided for special vocational teacher training.
7. The plan provided better contact between the superintendent and the vocational schools.

The determining factors which were taken into consideration in the selection of the above plan were as follows:

1. The lack of special equipment for dealing with vocational education on the part of members of the former staff.
2. The need of providing for vocational training.
3. The geographical situation of the islands.
4. Economy.
5. A reduction of the area covered by supervising principals.

6. The need of more contact with the schools on the part of the superintendent in order to improve the efficiency of the instruction.

Functional and Non-Functional Organizations. — As a very simple illustration of the distinction between these two types of organization, the reader may assume that an administrator is responsible for the performance of six different kinds of functions, and that he has a staff of two or more people. In the delegation of responsibilities it is evident that he can assign all six responsibilities to each member of his staff, or, with a staff of two persons, he can assign certain responsibilities to one member and the remaining responsibilities to the other member. In the first case there is a non-functional organization, and in the second case a functional organization.

As a matter of fact, all kinds of combinations are possible. In the illustration just given, the administrator may reserve to himself certain responsibilities and assign the remaining responsibilities between the members of his staff, on either a functional or a non-functional basis.

In the non-functional organization, where the administrative job is of any size, it is customary to assign members of the staff to certain fields which are limited geographically or statistically. As examples of these methods of breaking up the job, a State may be divided, geographically, into districts, or each member of the staff may be assigned to a certain percentage of the total enrollment.

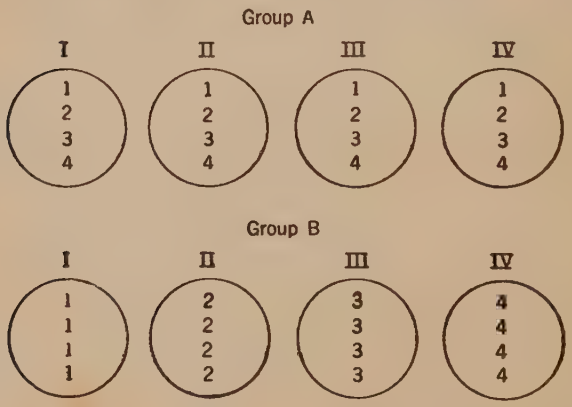
Where a functional organization is to be set up, the starting point is, of necessity, an analysis of responsibilities. Since such an analysis can be carried progressively to any desired degree of differentiation, each responsibility may ultimately become a function; and these functions, whatever their number, must be distributed in some way among the members of the staff. Where the staff is small, the distribution will be by major responsibilities; as the staff becomes larger, the distribution may become more highly specialized. A typical example of the assignment of functional responsibilities is illustrated when a superintendent of schools with a staff of assistants assigns one assistant superintendent to high schools, another to elementary schools, and an-

other to vocational schools. An example of a further differentiation of responsibilities is illustrated by the utilization of special supervisors, such as a special supervisor of music in the high school, or a special supervisor of elementary arts in the elementary schools. In the case of a State program of vocational education, the common functioning factors are the various fields, such as vocational agricultural education, trade and industrial education, vocational home economics, civilian vocational rehabilitation, vocational commercial education, and vocational teacher training.

Evidently, it is quite possible to carry the separation of functions further in some cases than it is in others. In practice, the limiting factors are the size of the job and the size of the staff, together with the importance of special qualifications. A good illustration of these limitations is found in the organization of an

DIAGRAM No. 3

FUNCTIONAL AND NON-FUNCTIONAL ORGANIZATION

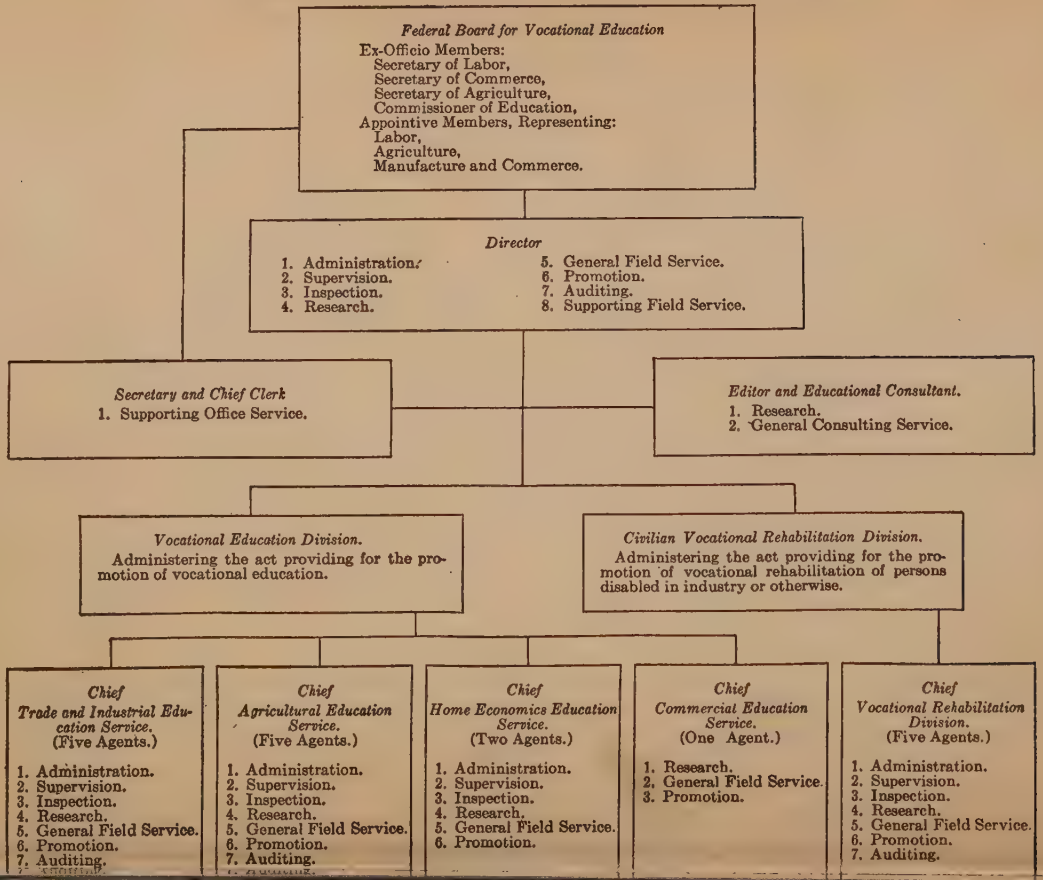


industrial plant where the employing and planning departments represent a specialization of functions carried beyond the point to which it has been carried with regard to other responsibilities.

Every job involves the discharge of certain responsibilities. Whether the job is carried on entirely by one individual or by a number of individuals, these responsibilities must be discharged. The distinction between the two types of organizations

CHART No. 1

Organization of the Federal Board for Vocational Education



which are now being discussed is merely a question of the way in which responsibilities may be assigned, where more than one individual is responsible for carrying on the work. In Diagram No. 3, the series of four circles represents an administrative job, which may be assumed to involve a number of different administrative responsibilities, designated by the Arabic numerals 1, 2, 3, and 4. With a staff of four members, as designated by the Roman numerals I, II, III, and IV, the responsibilities can be assigned as indicated in Group *A*, or as in Group *B*. An assignment like that shown in Group *A* represents a purely theoretical, non-functional organization, and an assignment like that of Group *B* represents a purely functional organization.

Practical and Theoretical Organization. — The foregoing discussion is entirely theoretical. In practice one seldom or never finds an organization that is purely functional or one that is purely non-functional; it is common, however, to find a combination of the two types. A good illustration of such a combination is the organization set up by the Federal Board for Vocational Education, as shown in Chart No. 1.

Characteristics of the Two Theoretical Types of Organizations. — The two types of organizations discussed in foregoing paragraphs have certain characteristics, as shown in Table No. 7.

It will be noted in a general way that the greater efficiency resulting from the utilization of specialists in the functional organization is counterbalanced by certain undesirable factors. These include the greater difficulty experienced in administration and in securing coöperation, and the narrowing of the experience utilized by staff members.

The Administrative Problem in Staff Organization. — Obviously, the administrative problem is to set up a staff organization in which, according to the special working conditions, the desirable characteristics of both types of organizations are secured to their maximum degree. This means that the administrator must at once give up all notions of securing "easy administration." If that be his main objective he should select the non-functioning organization, since in proportion as he introduces functional responsibilities he immediately begins to increase his administrative difficulties. Of the thirteen different character-

TABLE No. 7

CHARACTERISTICS OF FUNCTIONAL AND NON-FUNCTIONAL ORGANIZATIONS

Functional Organization	Non-Functional Organization
1. Makes possible utilization of special abilities, interest, and training.	1. Permits of easy promotion.
2. Makes possible a more definite assignment and placement of responsibilities.	2. Makes transfers within the organization easier.
3. Results in greater efficiency.	3. Makes it easier to set up a uniform salary schedule.
4. Promotes pride in the job.	4. Makes it easier to set up qualifications for employment.
5. Results in a narrower and more intensive experience.	5. Makes it easier to expand and contract the staff.
	6. Makes it easier to secure desirable people for employment.
	7. Makes it easier to secure cooperation between different members of the staff.
	8. Insures a broader apperceptive base on the part of staff members.

TABLE No. 8

DESIRABLE CHARACTERISTICS IN A PRACTICAL ORGANIZATION

Desirable Characteristics
(1) The utilization of special abilities, interests, and training.
(2) A more definite assignment and placement of responsibilities.
(3) Greater efficiency.
(4) Job pride.
(5) Coöperation between different members of the staff.
(6) A broad apperceptive base on the part of staff members.

istics listed in Table No. 7, there are at least six that are essential to any practical organization. These six are enumerated in Table No. 8.

The administrative problem is, therefore, one of developing a composite organization such that the items given in Table No. 8, and any additional characteristics of a similar nature, are secured

to the maximum degree, with regard to the special objectives for the attainment of which the staff is responsible. The solution of this problem requires a certain "give and take" as between a purely functional and a strictly non-functional organization. For example, special abilities and training, given as item (1) in Table No. 8, and a broad apperceptive base, given as item (6), are two incompatible variables, since they can not both be secured to the maximum degree in the same type of functional organization.

Dealing with the Problem of Staff Organization. — There are two methods of solving this problem. They may be designated respectively as the series method and the parallel method. According to the series method, certain pay roll jobs may be made non-functioning up to a certain point, and beyond that point they may be established on a functioning basis. Referring to Chart No. 1, page 45, showing the organization of the staff of the Federal Board for Vocational Education, the pay roll jobs of the different chiefs of service might be organized on a non-functional basis; that is, these jobs could be made to include responsibilities in all fields instead of in one field only, as is provided in the types of organization shown. In the same way, the duties of the agents might be organized entirely on a functional basis, even within specific fields. There might be, for example, an agricultural agent for research, a trade and industrial agent for auditing, and another for pure inspectorial work, and so on to any degree of special functionalization required.

According to what has been called the parallel method, certain specific responsibilities may be assigned non-functionally throughout the organization, and certain other responsibilities may be functionally assigned to the same or to additional pay roll jobs. It will be an interesting thing for the reader to analyze the organization of the Federal Board for Vocational Education, as shown on the chart, and to determine the degree to which it is organized on a functional and on a non-functional basis.

Basis for Functionalizing an Organization. — There are a number of different bases for functionalizing an organization. Among these may be mentioned: (1) the basis of service to youth or to adults; (2) the basis of the vocational education of boys and

men or of girls and women; (3) the basis of special fields of vocational education, such as agricultural, trade and industrial, home economics, commercial, or civilian vocational rehabilitation; (4) the basis of types of schools to be supervised by different staff members; (5) the basis of responsibility for technical or shop instruction; (6) the basis of groups to be dealt with from the standpoint of nationality; and (7) the basis of the major responsibilities enumerated in Chart No. 1, page 45.

The following outline shows how these various bases can be utilized in determining the character of an organization or the manner in which it is functionalized. In the outline as given, the functionalization is first determined by major fields, as denoted by the letters *a*, *b*, *c*, *d*; and the organization is then further functionalized on various bases, as denoted by the numerals (1), (2) and (3):

a. Trade and industrial education functionalized on a sex basis for:

(1) boys and men;
(2) girls and women.

b. Agricultural education functionalized on the basis of maturity for:

(1) youth;
(2) adults.

c. Home economics education functionalized on the basis of content by:

(1) work jobs;
(2) managerial jobs.

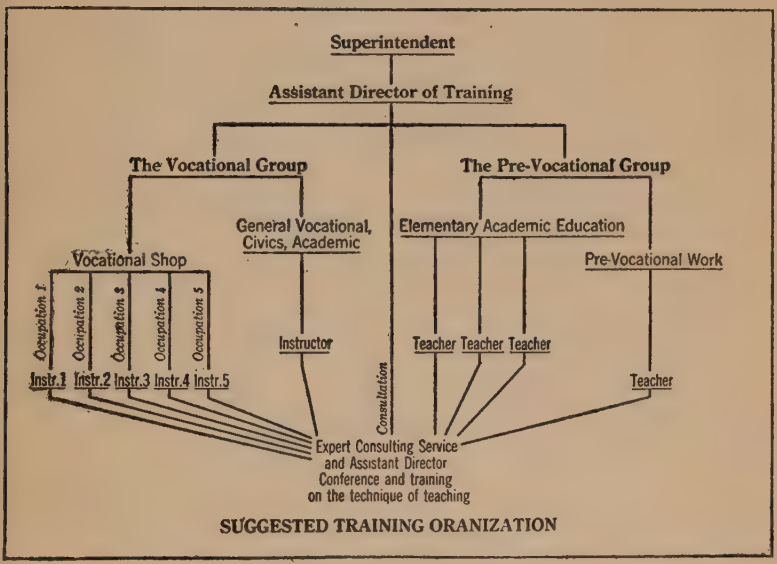
d. Civilian vocational rehabilitation functionalized on the basis of character of handicaps as between:

(1) cases due to industrial accidents;
(2) cases due to public accidents;
(3) cases due to congenital diseases.

Charting Organizations. — Charts No. 2, 3, and 4 are illustrative of methods used in charting organizations of various degrees of complexity, and with various administrative objectives in view.

CHART No. 2

ORGANIZATION OF AN EDUCATIONAL PROGRAM FOR THE STATE TRAINING SCHOOL FOR BOYS, RED WING, MINN.



SUGGESTED TRAINING ORANIZATION

CHART No. 3

ORGANIZATION OF THE UNIVERSITY OF THE STATE OF NEW YORK AND THE DEPARTMENT OF EDUCATION

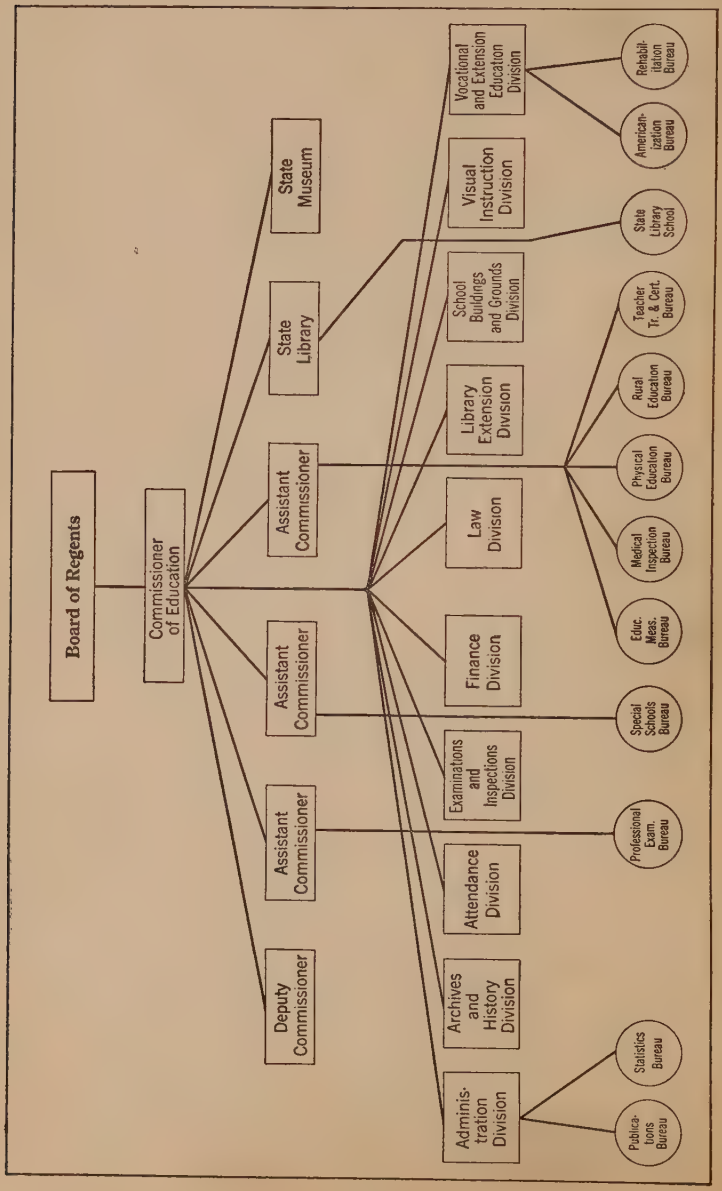
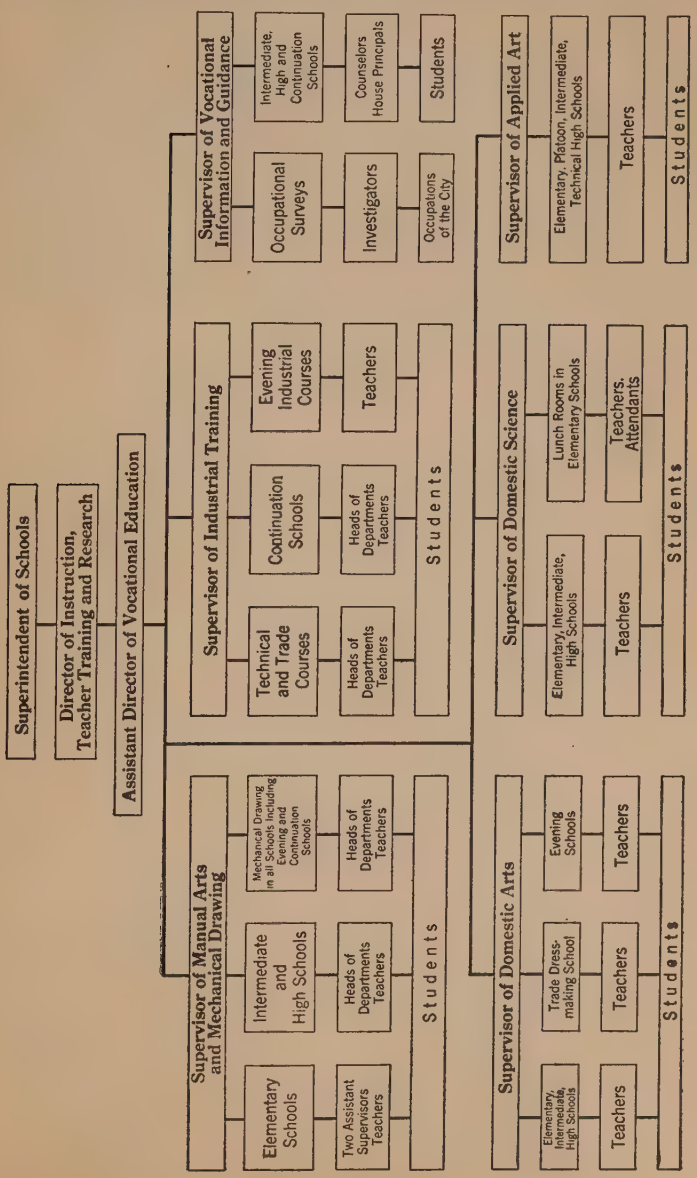


CHART No. 4

ORGANIZATION CHART SHOWING SUPERVISORY RELATIONSHIPS WITHIN THE DEPARTMENT OF VOCATIONAL EDUCATION, DETROIT PUBLIC SCHOOLS



Value of Analysis of Responsibility. — From the preceding discussion it must be evident that, regardless of the particular type of organization, it is necessary that every member of a staff know his responsibilities and the responsibilities of others, if overlapping of responsibilities and maintenance of clear administrative channels are to be preserved. Methods of making such analyses have been developed, and have been fully treated in such publications as " The Foreman and His Job," by Charles R. Allen, published by J. B. Lippincott Co., and in Bulletin No. 36, Part I, Federal Board for Vocational Education.

The following outline is a progressive analysis of the responsibilities of an administrator of vocational education as carried out through five stages of differentiation:

A. Agriculture.
  1. Operation.
     a. Inspection.
     b. Improvement.
        (1) Research.
           (*a*) Statistical.
           (*b*) Constructive.
        (2) Service.
  2. Teacher Training.
     a. Inspection.
     b. Improvement.
        (1) Research.
           (*a*) Statistical.
           (*b*) Constructive.
        (2) Service.

B. Trades and Industries.
  1. Operation.
     a. Inspection.
     b. Improvement.
        (1) Research.
           (*a*) Statistical.
           (*b*) Constructive.
        (2) Service.

2. Teacher Training.
   a. Inspection.
   b. Improvement.
      (1) Research.
         (*a*) Statistical.
         (*b*) Constructive.
      (2) Service.

C. Home Economics.
1. Operation.
   a. Inspection.
   b. Improvement.
      (1) Research.
         (*a*) Statistical.
         (*b*) Constructive.
      (2) Service.
2. Teacher Training.
   a. Inspection.
   b. Improvement.
      (1) Research,
         (*a*) Statistical.
         (*b*) Constructive.
      (2) Service.

D. Civilian Vocational Rehabilitation.
1. Operation.
   a. Placement training.
      (1) Inspection.
      (2) Improvement.
      (3) Teacher training.
   b. Institutional training.
      (1) Inspection.
      (2) Improvement.
2. Research.
   a. Statistical.
   b. Constructive.

E. Auditing.
1. Office.
2. Field.
3. Service.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Taking the seven typical objectives as given in this chapter on page 35, assign to each objective a number somewhere between 0 and 10, indicating your opinion as to the relative number of times each objective would become dominant in a single year of administrative work.

2. Rate the above-mentioned objectives according to your opinion as to their relative value in the promotion of an efficient program.

3. It was desirable to establish an educational program in a certain institution. There were available competent individuals on the staff of the organization in the following occupations:

Building and construction work;
Baking;
Cooking;
Printing;
Plumbing;
Sheet metal work; and
Painting.

It was desirable to establish an organization giving vocational training in these occupations. The instruction was to include both technical and practical training. What kind of an organization would you set up, and why?

4. A superintendent of schools in a city of 300,000 population desires to introduce a vocational program. He can add $30,000 to his budget for administrative salaries, and his staff is organized entirely for general education. How would you reorganize the staff so as to provide for the administration and supervision of vocational education, and why would you organize it in that particular way?

5. In a public school system in an industrial city of 250,000 population it is necessary to provide for a compulsory continuation school program, and to provide for at least 1500 children attending on the basis of four hours per week. The present organization consists of a superintendent of schools and three assistant superintendents, one of whom is responsible for high schools, one for elementary schools, and one for special subjects. No additional funds are available for administration or supervision. (*a*) How would you reorganize the staff, and why? (*b*) What information would need to be in your possession in order to deal with this problem efficiently?

6. Referring to the organization set up in the Hawaiian Islands, as outlined on page 41, suggest an alternate organization which in your opinion would have been equally efficient, and give your reasons.

7. Discuss relative advantages and disadvantages of plans (1), (2), and (3) which were outlined as possible plans for the Hawaiian Islands.

8. Make a chart of some educational organization with which you are familiar, and give reasons for the particular type of chart used.

9. Prepare a chart showing an organization for the Federal Board for

Vocational Education, using different bases from that shown in Chart No. 1, on page 45.

10. Make a responsibility analysis of the job on which you are employed or some other job with which you are familiar.

11. Make a corresponding responsibility analysis of what you believe would be a good organization for a program based on the local need for agricultural, trade and industrial, home economics, commercial education, and civilian vocational rehabilitation, for a city of 500,000 population.

12. Prepare an inventory of the different kinds of information which you found it necessary to take into consideration in preparing the above layout and enumerate your reasons for the particular layout which you selected, the above plan to be based upon a budget limitation of $100,000, of which not more than $90,000 may be expended for salaries.

CHAPTER IV

PREPARATION AND ADMINISTRATION OF THE BUDGET

Preliminary. — One of the most important administrative responsibilities is that of financial administration. This is one of the responsibilities for which the administrator is directly responsible to the superior authority and one that he can not delegate. It involves securing sufficient funds to carry on his program and making the best of whatever money he may be able to secure. These questions constitute the real financial administrative problems; consequently, this chapter deals with these phases of financial administration rather than with the mechanical technique of budget making.

Budgets and Estimates.—The terms budget and estimate are frequently regarded as synonymous and are often used more or less interchangeably. In order to prevent confusion in thinking on the part of the reader, it seems worth while to discuss the distinction between the two.

Both budgets and estimates deal with funds. They are both made in advance; they both represent someone's "best guess"; they both involve statements as to the amount of money required to discharge specific responsibilities; and, in fact, they are both based upon an analysis of responsibilities. Here the resemblance ends. Theoretically, in making an estimate, there is no limit to the amount of funds available, and the amounts are estimated on the opinion of the estimator as to what will be necessary to discharge with maximum efficiency the various responsibilities that must be discharged by himself and the members of his staff.

In the case of a budget, however, the total funds available are limited, and this fact necessitates relative evaluation of responsibilities, which is not necessary in the case of an estimate. In the case of estimating, the estimator assumes that he has been asked by the superior authority to determine what it would cost to do a first-class job. In the case of budgeting he has been told by his

superior authority that a certain sum of money is available, and that he is expected to do the best he can with that amount. In this latter case, it is necessary for him to do something less than a first-class job if he does not secure as much money as has been estimated to be necessary or desirable. Budgeting, therefore, involves two ideas, both of which are foreign to estimating. First, the idea of working with limited funds; and second, the evaluation of responsibilities against each other in terms of their relative necessity and importance to the carrying out of the program.

In other words, an estimator starts with a job and works toward costs or funds which should be available. A budgeteer starts with funds available and works toward the job.

Two illustrations. — A superintendent of schools submits the following items to the board of education for the operation of the school system for the ensuing year:

a.	Salaries of teachers	$150,000
b.	Maintenance of equipment	35,000
c.	Textbooks and supplies	15,000
d.	Incidentals	5,000
	Total	$205,000

He has submitted these items to his board as an estimate of what he thinks it will cost to operate the schools and accomplish the various objectives included in his program.

After a consideration of the estimate and of funds available, the board of education authorizes and provides the sum of $175,000. As a result of the necessity of evaluating the importance of various items in his estimates, the superintendent may decide to cut salaries $10,000, maintenance and equipment $5000, textbooks and supplies $11,000, and incidentals $4000. It will be noted that his decisions provided for the least proportional cut in the item for salaries since the schools could not be maintained with any degree of efficiency without adequate teachers. As a result of the $30,000 reduction in his estimates the superintendent established the following series of items and corresponding funds in what may now be called his budget:

a. Salaries	$140,000
b. Maintenance of equipment	30,000
c. Textbooks and supplies	4,000
d. Incidentals	1,000
Total	$175,000

Since he was doing the best he could with a fixed maximum of $175,000 of funds available, he had budgeted the $175,000 in the sense in which the term budget is used in this discussion.

Successive Steps in Getting a Working Budget. — In the development of a working budget two situations exist. In the first situation the amount of funds available may be known, as, for example, the appropriations made on an annual basis for the Federal Board for Vocational Education for administrative purposes are fixed by the National Vocational Education Act and are known as permanent and continuing. In the second situation the funds available are determined upon the basis of estimates submitted, as was the current practice of Federal departments before the passage in 1921 of the Budgeting and Accounting Act. This second procedure is still the more common practice in public school financing. The only difference between the two situations is that in the first the budgeting starts immediately on the basis of known available funds, whereas in the second there are certain preliminary steps which must be taken before the funds available are known. These steps are as follows:

1. Making tentative estimates.
2. Checking tentative estimates.
3. Making tentative subdivisions of estimates.
4. Submitting estimates to appropriating authority.
5. Approval, disapproval, or modification of estimates by the superior authority.

Making Tentative Estimates. — There are three methods by which an administrator may prepare a tentative estimate. According to the first method, he makes his estimate without consulting anyone. According to the second method, he makes up a tentative estimate in conference with the members of his staff.

According to the third method, he asks the various members of his staff to submit to him estimates of their financial needs, and then makes up his tentative estimates from the estimates received from his subordinates. The first method is poor administration. The third method is better than the first, but the second or conference method is probably the best procedure to follow. So far as the first method is concerned, as it is an entirely individual matter, results depend entirely upon the knowledge which the administrator possesses of the actual situation and of the various factors involved.

Discounting Factors. — Where either the second or the third method is used, the various human characteristics of different members of the staff come into play and must be taken into consideration by the administrator. In taking these characteristics into consideration he must be able to apply certain discounting factors such as the following:

1. The habit of asking for more than is needed in anticipation of a cut.
2. Individual temperament, such as being a pessimist, being an optimist, being very practical, or being more or less of a dreamer.
3. Under-estimation due to individual notions of economy or for other reasons.
4. Plain carelessness, resulting in a failure to consider all needs.
5. Lack of exact knowledge as to specific responsibilities which are to be covered in that particular estimate.
6. Willingness or unwillingness to bear responsibilities.
7. Efficiency or inefficiency in the best utilization of funds.
8. Inter-staff jealousy.
9. An unwillingness to accept obvious limitations.

In proportion as the administrator is well acquainted with individuals on his staff, he will be able to apply these discounting factors advantageously. If, for example, he knows that a certain member of his staff habitually asks for a great deal more than he expects to receive, in expectation of having the request cut, the administrator naturally cuts. Again, the administrator may know that another member of the staff suffers from what we may call a financial superiority-complex, and feels that he should be

given all the money he needs, regardless of the needs of others. Again, he may know that another staff member is very conscientious in determining with great care the minimum amount of money which will enable him to discharge his responsibilities, and that he is able to verify the need for every dollar requested in his estimate. By the application of such discounting factors the administrator proceeds to make up a tentative estimate and to check it with the various limiting factors.

Checking Tentative Estimates. — A good administrator realizes that it is useless to go before the superior authority with an estimate which runs counter to such facts as the following:

1. Probable funds available.
2. General administrative policies.
3. Relative importance of various needs.
4. Legal restrictions.

For example, if it is a matter of common knowledge that the city government is unwilling to expend more than a million dollars for the current year for school buildings, on account of other municipal demands and the condition of local taxes, a good administrator, under these conditions, would not include in his estimate items totaling 4 million dollars for school buildings. He would know that the only effect of such a procedure would be a loss of confidence on the part of the superior authority in his ordinary common sense and judgment. Again, it may be a known fact that it is the policy of the superior authority to provide adequately for elementary schools, vocational schools, and junior and senior high schools, before it will consider the question of making funds available for a junior college. In the face of these known conditions, the administrator should not come forward with a recommendation for a junior college.

In certain cases, legal restrictions must be considered. For example, in certain States there is a limitation on the total amount of funds that can be raised by taxation for general school purposes. In the State of Wisconsin, local boards for vocational education have a maximum limit of special taxing power; while, in certain other States, all the funds available for vocational education are raised on the basis of a mill tax. In other cases, the funds available

are restricted in their use for certain specific purposes, such as Federal appropriations for the salaries of teachers of agricultural subjects and other allotments under the National Vocational Education Act. Such legal restrictions must, of course, be taken into consideration in estimating and budgeting.

Making a Tentative Revision of Estimates. — At this point in his procedure an administrator has before him a series of financial items which presumably have been discounted. He has a fairly accurate idea of the amount of money which he thinks he can get and of the activities which he can consider without running into undesirable situations. Within these limitations he has various cost items to which he must give consideration in a preferential order, such as the following:

1. Fixed charges.
2. Variable charges.
3. Modifications immediately necessary.
4. Desirable modifications not immediately necessary.
5. Innovations.
6. Preparations for future needs.

Under ordinary conditions, salaries and legal requirements constitute fixed charges. At the same time, a situation may exist where it is necessary to increase salaries. This recently happened, for example, in the case of the Federal Government, under the Reclassification Act recently passed by Congress. Desirable modifications may involve the addition of a specialist to the staff, or the establishment of training for additional occupations in the vocational program. An innovation may be the establishment of a girls' trade school.

Preparation for future needs may consist in including an item for the purchase of a tract of land in a suburban district to be used for future building purposes, the land being purchased because its value at the present time is much less than it will be a few years later and likewise because a better choice of location is now possible. On the basis of all such considerations, the administrator proceeds to make a tentative revised estimate.

Submitting Estimates to Appropriating Authority.—The next step is to submit the estimate to the appropriating authority, who

either approves, disapproves, or modifies the estimate. An administrator is likely to secure approval of his estimate in proportion as he is able to defend each item through his possession of accurate detailed knowledge with regard to the need for that particular item.

He will be in a much better position to defend each item if he has reviewed his revised estimates in conference with the members of his staff and has secured from them all possible functioning information. In some cases it will be desirable for him to arrange for certain members of his staff, who possess special knowledge with respect to some particular appropriation, to be available if needed at the time when he presents his estimate to the appropriating authority.

Functioning Factors in Estimating. — The ability of an administrator to defend his revised tentative estimate will depend not only upon his possession of all necessary information, but also upon the degree to which he has taken certain additional situations into consideration. With regard to funds and needs, there are three typical situations: (1) where both the estimated funds available and the number and kind of needs to be met are assumed to be fixed; (2) where the estimated funds are fixed and the needs to be met are variable; and (3) where the funds are variable and the needs to be met are fixed.

An illustration of the first situation would occur where an administrator estimated that he could get $100,000 for a vocational program and proposed no change of any kind in this program during the coming year. An illustration of the second case would occur where the administrator estimated that he could get the same amount of money, but wished to convert an all-day trade school into an opportunity school. An illustration of the third case would occur where the administrator proposed no change in his program, but had no definite idea as to the amount of funds he would be able to secure.

Personal Factors Affecting Estimating. — In the same way, his estimating may be based upon certain personal considerations as to (1) economy, (2) his personal attitude toward certain dominant activities, (3) his personal attitude toward proposed new activities, and (4) a desire to avoid trouble. These are personal

characteristics. One individual may desire to make a reputation for economy, and that objective may dominate his entire financial program. Another administrator may be particularly interested in certain activities which are dominant in his mind, as, for example, training boys in skilled trades on a preëmployment basis, as against the training of girls in the occupations followed by girls and women. Again, his whole purpose may be to avoid trouble and he may therefore make up his estimate in such a way as he thinks will avoid discussion when it is submitted to the appropriating authority.

The administrator may be educationally conservative and consequently may make up his estimate in such a way as to provide ample funds for standard educational work, such as college preparatory courses, while he may deliberately reduce, as far as possible, items covering vocational education for employed adults or continuation school work for employed young people, which he may consider of little importance or which may have been forced upon him by outside pressure.

Practical Use of Estimates. — The preceding paragraphs call attention to the degree to which attitudes of mind either consciously or unconsciously affect the preparation of estimates. In addition to expressing these attitudes, the making up of an estimate provides an agency which can be utilized for either desirable or undesirable purposes through "feeding" or "starving" certain enterprises already embodied in the program. For example, it may be assumed that an administrator is fundamentally opposed to the continuation school, but is in favor of preëmployment vocational schools. He has on his hands a continuation school which he would like to get rid of, but the policy of the superior authority is in favor of the continuation school. By systematically reducing, as far as he possibly can, funds provided in the estimate for the continuation school, the administrator can gradually reduce its efficiency to a point where he can successfully claim that the school is not worth continuing. On the other hand, the converse of the above statement is equally true. Where an administrator has some particular project which he wishes to develop and in which he is particularly interested, he can see to it that this project is assigned adequate funds. In this way the

favored project, operating under favorable conditions, can be brought up to a point where its subsequent development is justified on the basis of past demonstration of its social value.

Making up the Working Budget. — Whether the funds available are derived from estimates or from permanent and continuing appropriations, the administrator finally has available a certain fixed amount of funds and certain determined needs which he must meet. Under modern conceptions of efficient administration, this situation calls for the setting up of a budget. The making of a budget involves the consideration of certain elements. The more important of these are (1) needs, (2) funds available, (3) allocation of funds to specific needs, (4) evaluation of various needs, and (5) decisions as to allocation as based upon evaluation.

In proportion as the above elements are taken into consideration, the budget will be prepared in what may be called a scientific manner. This statement means that the preparation of the budget is merely a special case of the working out of a typical managerial problem, and involves the usual six steps, as follows:

1. The assemblage of facts.
2. The selection of functioning facts.
3. The evaluation of functioning facts.
4. The making of a decision.
5. The making of a plan to carry the decision into effect.
6. The execution of the plan.

The Budget Compared with the Estimate. — In so far as it is made out in advance, and is developed on the basis of a certain total of funds available, the budget resembles the estimate, except that, in estimating, the final working total is a rough guess, largely based upon expectation and hope, whereas in the budget it is an accurately known and fixed amount. Both the estimate and the budget involve allocations and some form of organization, the final difference being that in the budget the administrator is obliged to do the best he can with a fixed amount, whereas in estimating he always hopes that he may get the full amount assumed in his estimate, but realizes that he may get less. The fundamental distinction between estimates and budgets lies in

the fact that the budget is definite and the estimate is based upon a series of " best guesses."

Characteristics of a Budget. — A budget, as such, has certain distinguishing characteristics. Among these characteristics are the following:

1. It is made in advance.
2. It allocates specific amounts to specific enterprises.
3. It is based upon a fixed total of funds available.
4. It is definitely organized.

Organizing a Budget. — A budget is made up of a group or a series of groups of classified proposed expenditures obtained through the process of making a progressive analysis of the general purpose for which the total fund is to be expended. This analysis is carried out through a series of progressive differentiations. The number of these progressive stages depends upon the amount of funds to be expended and upon the complexity of the problem of fund utilization in terms of the different activities to be considered.

A large organization like the Federal Government naturally finds it necessary to carry such an analysis through a greater number of progressive stages of detail than a housewife budgeting the family income of $2000 a year.

In the same way, a business concern carrying on a large number of diversified enterprises may be obliged to carry the analysis to a much greater degree of detail than is necessary in the case of a concern doing the same volume of business but confining its activities to one line of merchandising. The general type of an analysis of this kind is indicated in Diagram No. 4. The total expenditure is broken up into four major items represented by *A*, *B*, *C*, and *D*. These items, for example, may represent salaries, travel, printing, and communications. Each of these major divisions is in turn broken up into a number of subdivisions indicated by numbers 1, 2, 3, 4, and 5, item *A*-2 being in turn broken up into two divisions as a further progressive stage of the analysis.

The second progressive step is usually carried out by making tentative allocations to the more important groups of detailed items. These allocations are usually based upon known expendi-

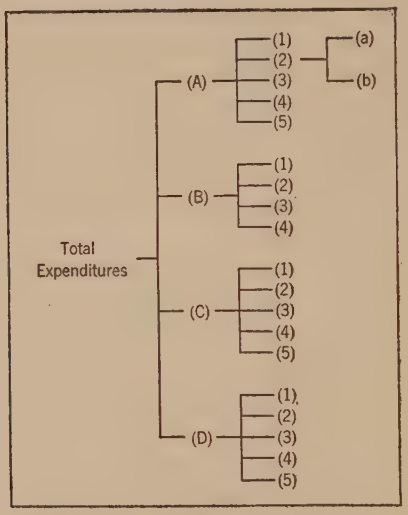
tures for the same items for previous years, or upon the experience of the administrator in similar situations.

The third step consists in working back from the detailed allocations by successive group additions so as to secure the grand total.

The fourth step consists in adjusting allocations of funds for detailed items as necessary, so as to balance the total with the total funds available.

DIAGRAM No. 4

ANALYSIS OF ITEMS TO BE BUDGETED



Efficiency Factors in Budgeting. — There are certain considerations which affect the efficiency of a budget. Under most conditions budgets are compiled from sub-budgets. Efficiency will therefore be greatly increased if all sub-budgets are made up on the same organization plan as is the final budget. The efficiency of the budget is also increased where the sub-budgets are required to show the expenditures which occurred during the preceding year for the same detailed items. The efficiency is still further increased if the analysis or any portion thereof is not developed progressively beyond the point where it serves a useful purpose.

For example, in the case of funds budgeted for travel, it is possible to extend the analysis into such items as lodging, subsistence, transportation, tips, baggage transfer, laundry, bus fares, street car fares, and numerous other items. Where the sum of $1500 has been budgeted for the purpose of travel on the part of a State supervisor, such a minute stage of differentiation would serve no useful purpose, but on the other hand might have a very undesirable result. Under such a detailed type of budget, it is theoretically possible that the individual might find himself in a situation where his funds for transportation and lodging were ample but his allowance for meals was entirely exhausted.

Budget Items. — The passage on June 10, 1921, of the Budget and Accounting Act not only provided an organization for a much more stringent accounting of Federal expenditures, but also provided for an administrative bureau, the chief purpose of which was to sift from the estimates of appropriations all the chaff from the wheat and some of the wheat from the wheat. The two bodies thus created by this act of Congress are the Office of the Comptroller General and the Office of the Bureau of the Budget.

Some idea of the budget items and of the procedure followed by governmental departments in securing and operating their budgets may be gained from the following review of the annual exchange of correspondence, conferences, and hearings between the Bureau of the Budget and the expending organization.

The Government fiscal year begins on July 1. About June 1 a circular letter from the Bureau of the Budget, calling for a *preliminary estimate of appropriations* — not estimates of expenditure — for the fiscal year beginning July 1 of the calendar year following, *i.e.*, more than a year in advance of the date of submission of the estimates, is transmitted to the expending organization. Lump sums only are estimated for salaries, printing, and other administrative expenses; changes in the wording of acts providing for the appropriations must be noted. In this circular the estimating agency is warned that these estimates are for executive consideration only, and do not take the place of the regular estimates to be submitted on or about September 15.

About July 1, there is sent from the Bureau of the Budget a second circular letter, calling upon each department and inde-

pendent establishment to prepare *estimates of appropriation and expenditure* by such time as will permit their revision and submission to the Bureau of the Budget on a certain date. These estimates must be submitted on standard forms. All new projects or activities not provided for in the appropriations of the previous year must be accompanied by full and specific information. When a change in the wording of the law for the ensuing year is included in the text of an estimate, the change must be underscored; five copies of the estimate must be furnished the Bureau of the Budget. The preparation of these estimates, in the case of large departments having many diverse activities, is indeed a stupendous task; although it must be said that as the years go by and the officials of the department come into possession of definite figures for previous years' expenditures, coupled with the knowledge of what was and what was not done with these expenditures, the burden becomes considerably lighter.

The estimate of appropriations is merely a statement, made on a standard form, which shows the law under which the appropriation is authorized or proposed, and the amount of the appropriation requested.

About the middle of August, a letter from the Bureau of the Budget is transmitted to each expending organization, advising that the President has allocated a tentative maximum which should not be exceeded in the estimates which have been called for in the circular letter transmitted in July. Each estimate must be given in detail in accordance with the classification of items directed by the General Accounting Office. This classification may be clearly understood from a study of the form in which it is submitted. A sample of the budget of one of the independent establishments is included here for the information of the reader.

ESTIMATES OF EXPENDITURES OF THE ———— FOR THE FISCAL YEAR ENDING JUNE 30, 1927

		Estimated Expenditures, 1927 appropriation	Estimated Expenditures, 1926 appropriation	Expended and Obligated, 1925
	Departmental service:			
	Salaries —			
	Professional and scientific service —	*Average —*	*Average —*	*Average —*
		No. *Salary*	*No.* *Salary*	*No.* *Salary*
	Grade 6 $6,000 to $7,500; average, $6,750 —			
	Chief educationist (director)	1 $7,500	1 $7,500	1 $7,000
	Chief educationists (board members)	3 6,500	3 6,500	3 6,000
	Grade 5, $5,200 to $6,000; average, $5,600 —			
	Senior educationists	4 5,450	4 5,350	4 5,200
	Grade 4, $3,800 to $5,000; average, $4,400 —			
	Educationists	14 4,300	14 4,143	13½ 3,984
	Clerical, administrative, and fiscal service —			
	Grade 9, $3,000 to $3,600; average, $3,300 —			
	Senior administrative assistant	1 3,300	1 3,300	1 3,200
	Editor	.. ..	.. ..	½ 250
	Grade 6, $2,100 to $2,700; average $2,400 —			
	Principal clerk	1 2,500	1 2,500	1 2,500
	Grade 5, $1,860 to $2,400; average $2,111.42 —			
	Senior clerk — stenographer	1 2,000	1 1,920	1 1,860
	Senior clerks	2 2,100	2 2,010	2 1,930
	Grade 4, $1,680 to $2,040; average $1,860 —			
	Principal stenographers	4 1,860	4 1,845	4⅚ 1,786
	Grade 3, $1,500 to $1,860; average $1,680 —			
	Senior stenographers	7 1,635	7 1,575	7 1,526
	Grade 2, $1,320 to $1,680; average $1,500 —			
	Junior operators, office devices	2 1,560	2 1,560	2 1,560
	Custodial Service —			
	Grade 7, $1,680 to $2,040; average $1,860 —			
	Senior mechanic	1 1,860	1 1,800	1 1,740
	Grade 3, $1,020 to $1,260; average $1,140 —			
	Minor mechanic	1 1,260	1 1,260	1 1,200
	Senior laborers	2 1,110	2 1,080	2 1,020
	Guards (watchmen)	2 1,080	2 1,050	2 1,020
	Grade 2, $900 to $1,140; average $1,020 —			
	Junior laborers	2 960	2 960	2 900
	Total average number of employees	48	48	47⅚
01	Total salaries, departmental service	152,500	148,980	141,008.72
	The difference between 1927 and 1926 is due to increase in salaries, $3,520.			
	Supplies and materials:			
0200	Stationery and office supplies	800.00	1,160.00	603.37
0210	Medical and hospital supplies	10.00	5.00	5.70
0220	Scientific and educational supplies	25.00	25.00	22.87
0230	Fuel	500.00	1,050.00	1,004.06
0280	Sundry supplies	125.00	100.00	298.45
0290	Materials	.....	50.00	14.98
02	Total supplies and materials	1,460.00	2,390 00	1,949.43
	Communication service:			
0500	Telegraph service	350.00	350.00	325.84
0510	Telephone service	750.00	1,100.00	960.78
0520	Other communication service	30.00	40.00	50.00
05	Total communication service	1,130.00	1,490.00	1,336.62
	Travel expenses:			
0615	Transportation	$21,565.00	$21,565.00	$20,909.08
0616	Subsistence	13,385.00	13,385.00	12,974.19
06	Total travel expenses	34,950.00	34,950.00	33,883.27
07	Transportation of things (service)	50.00	50.00	75.43
08	Printing, photographing, and photographic prints	6,700.00	6,700.00	5,469.69
10	Furnishing of light and power	1,000.00	1,750.00	1,581.89
12	Repairs and alterations	50.00	50.00	59.38
13	Special and miscellaneous current expense	50.00	100.00	141.18
	Equipment:			
3010	Furniture, furnishing, and fixtures	350.00	300.00	728.49
3020	Educational equipment	150.00	250.00	369.08
3050	Other equipment	50.00	85 00	289.33
30	Total equipment	550.00	635.00	1,386.90
	Total	198,440.00	197,095.00	186,892.51

OBJECTIVE CLASSIFICATION

GROUP HEADINGS

Current expenses	**01**	Personal services.
	02	Supplies and materials.
	03	Subsistence and support of persons (service).
	04	Subsistence and care of animals, and storage and care of vehicles (service).
	05	Communication service.
	06	Travel expenses.
	07	Transportation of things (service).
	08	Printing, engraving, lithographing, binding, photographing, and typewriting (services).
	09	Advertising and publication of notices (service).
	10	Furnishing of heat, light, power, water, and electricity (service).
	11	Rents.
	12	Repairs and alterations.
	13	Special and miscellaneous (current expenses).
Fixed charges	**20**	Interest.
	21	Pensions, retirement salaries, annuities, World War allowances, and insurance losses.
	22	Grants, subsidies, and contributions.
Acquisition of property	30	Equipment (includes live stock).
	31	Land and interests in land.
	32	Structures and parts, and nonstructural improvements to land (includes fixed equipment).
	33	Stores purchased for resale.
Payment of debt	40	Public-debt redemptions and purchases.
Capital outlays for rights and obligations.	50	Investments (includes working capital funds).
	51	Treaty obligations.
	52	Repayments of deposits.
	53	Refunds, awards, and indemnities.

The items shown in the foregoing *Objective Classification* are further broken up into minor group headings, and these headings are in turn subdivided into a more detailed analysis of purposes for which expenditures are proposed. The system of numbering the various items and the method of further analysis may be noted from the following illustration of item (02), Supplies and Materials.

02 SUPPLIES AND MATERIALS

0200 Stationery and office supplies.

0201 Stationery.
Plain paper in sheets and rolls.
Printed forms and letterheads.
Envelopes, mailing jackets, tubes, and filing folders.
Cards, guides, tags, and tag strings.
Carbon and ink coated papers.
Wrapping, blotting, and cover paper in rolls or sheets.
Blank books.
Cardboard, binders' board, strawboard, tag board, and oil board.
Specially protected papers for checks, money orders, and bank notes.
Gum paper in sheets or rolls, labels, seals, and paper binders.

0202 Sundry office supplies.
Handwriting supplies, such as pencils, leads, wagons, penholders, pencil holders, crayon holders, pens, eradicators and erasers, pencil-point protectors, desk pads, blotter holders, and rocker hand blotters.
Supplies for office devices, such as typewriter ribbons and other office machine ribbons, brushes, pads and cloths for copying baths, inking pads for hand-stamping devices, metal seals, eyelets, staples, and other fasteners for hand-fastening machines, supplies for duplicating machines, etc.
Adhesive clips and fasteners, glue, paste, mucilage, pins, twine, tape, rubber bands and rings, sealing wax, metal tags.
Inks of all kinds except drafting, drawing, and artists' inks, miscellaneous office supplies, such as sponges, pencil pointers, office packing receptacle, binders and stub files, desk calendar pads, protectors for book corners, finger cots, key rings, etc.

0203 Drafting and artists' supplies.
Drawing and tracing cloth.
Process paper and process cloth.
Water colors.
Artists' charcoal.
Drafting, drawing, and artists' inks.
Thumb tacks.

Securing the Budget from the Estimates. — Some time after the middle of August, a letter is sent by the Bureau of the Budget to the expending organization, advising that it will be granted a hearing on a given date. In the meantime a committee of the

Bureau of the Budget, perhaps the whole staff, will have discussed the estimate as submitted.

The general theory on the part of the budget staff is that the expending organization is asking for more than it needs; and, on the other hand, those submitting the estimate all too frequently have reason to believe that their estimates are being considered solely from the point of view of saving money. A certain amount of "jockeying" is therefore inevitable, each group seeking to secure an advantage. So long as this condition prevails, the theory of budget and accounting can not work to its best advantage. As a matter of economics, a saving may not always result in an economy. It may, under certain conditions, be a saving to spend a certain sum of money. A certain successful business man, while serving as a member of a city board of education, was wont to say "It is not so much a question of how much you spend as it is a question of how much you get for what you spend."

A reduction in estimates, when based upon an authorized appropriation, is, therefore, justified only where it can be shown (1) that the money is not available, (2) that the proposed expenditure will not result in accomplishing the given need, (3) that the administration is not efficiently handled, or (4) that there is no longer a need for the expenditure.

Budgeting a Fixed Sum. — Where the expending organization knows definitely in advance just how much funds will be available, it can proceed to make up a budget with much less delay and detail. The following *summary of a budget* illustrates how the sum of $200,000 may be divided among certain general headings, and how the sum of $42,500 of this total may be further subdivided for the use of a specific service.

SUMMARY OF BUDGET, 1924–25

Vocational Education Fund

	For Year 1923–24	*Recommended for 1924–25*
I. General administrative expenses	$62,515	$68,414
II. Reserve and contingent fund	6,155	2,896
III. Salaries of staff and clerical force	87,780	88,460
IV. Travel and subsistence	39,900	36,430
V. Printing	3,650	3,800
	$200,000	$200,000

_____ Education Service

	For Year 1923–24	*Recommended for 1924–25*
I. Summary of Budget:		
1. Salaries	$28,730	$30,000
2. Travel and subsistence	12,650	11,300
3. Printing and miscellaneous	1,200	1,200
Total	$42,580	$42,500

II. Salaries:

Name	*Present Salary*	*Recommended Under Reclassification*	*Increase*	*Total*
Smith, H. M.	$4,500	$5,200	$700	
Long, R. D.	4,000	4,000		
Brown, John	4,000	4,000		
Reed, W. R.	4,000	4,000		
Grant, E. D.	4,000	4,000		
Putnam, H. W.	3,850	4,000	150	
Rickert, H. L.	1,800	1,800		
Hollis, R. H.	1,500	1,500		
Olson, W. C.	1,440	1,500	60	$30,000

III. Travel and Subsistence:

Smith, H. M.	1,700	
Long, R. D.	1,750	
Brown, John	1,850	
Reed, W. R.	1,850	
Grant, E. D.	2,100	
Putnam, H. W.	1,500	
Travel Reserve Fund	550	11,300
IV. Printing and Miscellaneous:		1,200
		$42,500

Adjusting Items to Meet Current Needs. — The statement has already been made that a budget is merely an allocation of funds of which the maximum total is known, and that it is based upon the best possible estimate of anticipated expenditures. A budget is, therefore, based upon a situation or upon situations which at the time the budget is made exist only in the future, and in the imagination of the budget makers. As time goes on and the actual situations develop, the actual budgeted items will not always agree with those set down when the budget was made, and therefore a periodic adjustment of the items budgeted is necessary. The readjustment of items to meet current needs may take either one of two forms. It may mean the addition or elimination of certain classifications which appeared in the original budget. In the great majority of cases it will mean a redistribution or reallocation of funds to the various items as they appeared in the original budget.

As an illustration of the first case, it may be assumed that a change in policy on the part of the superior authorities has required the inclusion of a coöperative apprenticeship training course in the vocational program. If an advisory committee is provided, as is usual in the case of apprentice schools, the budget officer may find it necessary to introduce a new classification heading, in order to take care of certain additional expenses connected with advisory committees, such as travel or stenographic service. As an illustration of the second case, an epidemic may have occurred and may have necessitated the employment of an unexpected number of substitutes. This situation would require the allocation of additional funds for salaries.

Causes Requiring Budget Modifications. — There are a considerable number of possible causes which may be responsible for budget adjustments. Among these may be (1) separations, (2) changes in the size of the staff, (3) temporary special service or needs, (4) leaves of absence without pay, (5) sick leave without pay, (6) changes in the character of the work, (7) an epidemic, (8) new legislation, or (9) changes in policy.

The situations brought about by the above-mentioned causes may result, in certain instances, in a surplus of funds, and in other instances in a deficit with regard to specific budget items. Since

the total amount allowed by the budget remains fixed, the only thing that the administrator can do is to "take from those who have, and give to those who have not" or, in other words, to transfer funds from the items in which a surplus exists to those in which a deficit is anticipated or actually exists. Under certain conditions transfers must be authorized by the superior authority, while in other cases they can be made by the administrator, as long as he keeps within the sum total or major totals for which his funds are budgeted.

Working Procedure in Making Adjustments. — In order to use a budget effectively, there should be a periodic checking of obligations and expenditures against the items as budgeted. The intervals between the checking periods will depend upon the length of time for which the original budget was made and the degree to which it has been differentiated. For example, in the case of a State having biennial appropriations, the original budget will probably need more modifications than will a budget made up on the basis of an annual appropriation.

Under ordinary working conditions there should be a monthly checking up of any budget. The financial recording agency should report available balances to the administrator up to this checking period. Where more than one person is responsible for expenditures in accordance with the budget, the administrator should proceed to make his adjustments in conference with the members of the staff responsible for those expenditures.

It may be noted that the budget, as adjusted at the beginning of any checking period, represents practically a new budget which has again been projected through the period of time that must elapse before another readjustment is made.

Advantages and Disadvantages in the Use of a Budget. — The chief advantages and disadvantages in budgeting funds are suggested in Table No. 9.

Minimizing Disadvantages. — The disadvantages suggested in Table No. 9, page 76, may be minimized through the process of checking and adjusting the funds budgeted for the various items, as described in the previous paragraph. This procedure also tends to avoid the danger of bringing about a static situation. Evidently this procedure will only be efficiently carried out if the

administrator is fairly well posted at all times and therefore is able to discuss budget modifications intelligently, either with members of his staff or with his superior authority. This statement is equally true in the presentation of the original budget to that authority. One of the difficulties which the administrator must overcome in minimizing disadvantages is the lack of coöperation between various members of his staff as to " give and take " with regard to transfers of funds. Coöperation is essential to effective budget making, and even more so in the case of adjustments made from time to time.

TABLE No. 9

ADVANTAGES AND DISADVANTAGES IN THE USE OF A BUDGET

Advantages	Disadvantages
1. Secures final control of expenditures.	1. Does not permit of flexibility in the use of funds.
2. Insures fixed allotments for various items included.	2. Is likely to bring about a static situation.
3. Insures an evaluation of relative value of needs.	3. May delay getting action.
4. It is easier to "sell" to appropriating authorities.	4. Makes it necessary for the administrator to be posted on each item.
5. Enables appropriating authorities to give consideration to individual items.	

Functions of the Budget. — A budget is merely a mechanical device for the handling of funds. It has no intrinsic value except in so far as it is utilized intelligently as such a device. It does not relieve the administrator of any financial responsibility even when he handles it intelligently. Neither does it relieve him of any sense of responsibility or of financial worries. It is true that an administrator, if he is seeking " the easiest way," can use a budget as a means of avoiding his actual responsibilities, by making a " smoke screen " out of it at the expense of efficiency and morale, but such a use of a budget can not be regarded as good administration.

A Budget or No Budget. — The idea of budgeting funds is comparatively recent. The older procedure was the " lump sum "

appropriation given under certain legislative restrictions. Such, for the most part, were the appropriations made under the Morrill and Hatch Act, providing Federal aid for agricultural colleges and experiment stations. Administrators may feel that the budgeting of funds is a reflection upon their administrative ability or that it puts them in "a strait-jacket" financially. It is generally conceded today, however, by students of finance, that the advantages of a well-arranged budget in the hands of a capable administrator outweigh the disadvantages under the same conditions.

Methods of Appropriating Funds. — Various legislative bodies authorized to appropriate funds, such as boards of education in certain school districts, city councils, State legislatures, and the Federal Congress, have developed certain ways of appropriating funds. The more common of these are as follows:

1. Appropriations to meet statutory and constitutional provisions.
2. Appropriations for a specific purpose.
3. "Lump sum" appropriations.
4. Permanent and continuing appropriations.
5. Deficiency appropriations.
6. Authorization of an activity as distinguished from an appropriation for the support of that activity.

An authorization always precedes the making of an appropriation. In certain States authorizations are contained in the State constitution, and other authorizations are contained in the State statutes. For example, in a certain State, the constitution authorizes an annual salary of $3000 for the State superintendent of public instruction. In a similar manner, previous to the passage of the Federal Reclassification Act, there were large numbers of Federal positions known as statutory positions, in that the positions and the accompanying salaries were specifically stated in the enacting legislation. Even under present conditions there are certain positions of this type still remaining in the Federal service, as, for example, the President of the United States, the Comptroller General, and members of The Congress.

Appropriations for Specific Purposes. — An illustration of an appropriation for a specific purpose is the appropriation made by a certain State legislature for the maintenance and operation of a State textile school. This illustrates the first stage of limitations placed upon the use of funds. The effect of statutory and constitutional provisions, as well as appropriations made for specific purposes, is to limit the flexibility of the budget in that they establish certain fixed items and certain fixed allocations of funds for these items, both of which require preferential treatment on the part of the administrator when making up his estimates and in the subsequent readjustment of the items.

"Lump Sum" Appropriations. — In the case of "lump sum" appropriations, only the general purpose for which the funds are to be expended is specified. The budgeting of these funds is left entirely in the hands of the administrative authority. Illustrations of this type of appropriation are the "lump sum" appropriation made by city councils for the support of the public schools, or for the support of the vocational program under a separate local board for vocational education. Unlike the cases discussed above, a "lump sum" appropriation permits the administrative authority to establish and operate the budget with great flexibility and elasticity.

Continuing and Periodic Appropriations. — Entirely aside from the question of limitations placed upon their use, funds may be provided either by continuing appropriations or by periodic appropriations. A continuing appropriation is automatically provided by the disbursing authority as long as the original legislation remains in force and effect. A good example of permanent and continuing appropriations are the appropriations made under the Smith-Hughes Act, or what is commonly known as the National Vocational Education Act. As long as this act remains on the statute book, in its present form, the funds appropriated therein are automatically provided by the Secretary of the Treasury.

Authorization and Appropriation. — An authorization is entirely separate and distinct from an appropriation made by the legislative authority, although these two terms are often combined in one act. It is possible for an appropriation to have been author-

ized and not actually made. A good illustration of this statement is the situation in a certain State where the State legislature accepted the benefits of the Civilian Vocational Rehabilitation Act, and, after two or more years of operation, failed to make the appropriation authorized in the act of acceptance.

Advantages of a Permanent and Continuing Appropriation. — A permanent and continuing appropriation is of great advantage in the making up of a budget, because the total funds available are known, as long as that particular legislation remains in force and in effect. Where the authorization and appropriation have been separated, an element of uncertainty is always introduced, first, as to whether or not the entire amount will be provided, and second, if not the entire amount, how much will be provided.

Deficiency Appropriations. — It is very generally recognized in legislative practice that unavoidable conditions may make it necessary to spend more money than was originally provided. Where a situation of this kind exists, it is usually covered by a so-called deficiency appropriation. The administrator who, either through his failure to budget or through a disregard of his budget, creates a deficiency with the expectation that he will be able to secure a deficiency appropriation from the appropriating authority, is following what is now considered very poor administrative practice. According to the modern conception of good administrative practice, the efficient administrator aims to secure, at the beginning of the fiscal year, definite authorization for the amount of money necessary to carry on his program; and, if he anticipates difficulty in securing adequate funds, he fights his case at the beginning and not during the fiscal period, or at its end. An administrator who establishes a record for repeatedly creating situations in which it becomes necessary for the appropriating authority to provide additional funds, is not establishing a desirable reputation according to present standards. Instead, he is creating the impression that he is either a politician or a very poor financial manager, both of which are undesirable to-day in any educational field, and will become more and more undesirable in the future.

Budget Management. — It may be well to close this chapter with a few comments concerning budget management. Every

individual who is concerned with the budget is entitled to a "square deal"; but budget management is like any other kind of management, in order to be efficient it must recognize the principles of good personnel management. Subordinates should be kept informed as to the condition of the budget and should be made a party to any modifications. The suggestion that these modifications be made in a staff conference was very largely based upon this consideration. It is generally regarded as very poor practice for an administrator to undertake to keep either the budget or the condition of the budget at any time a secret from the members of the staff who are concerned with its preparation. It is impossible to secure intelligent staff coöperation in the operation of the budget, unless the various staff members are fully informed as to financial conditions which in any way affect their individual jobs.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. The director of a trade school submits the following statement to his administrative superior:

1. Salaries	$10,000
2. New equipment	2,000
3. Material	1,000
4. Incidentals	500
Total	$13,500

with the statement that this sum will be required for the operation of his school for the following year. Is this an estimate or a budget? Why?

2. If you were administratively in charge of a vocational school, and faced with the problem of budgeting the sum of $250,000 for the operation of the school for a period of one year, how would you proceed to set up the items for the budget?

3. Prepare the budget under the items obtained in Question 2.

4. Answer the following questions with regard to 2 and 3 above:
   (*a*) Through how many stages of differentiation did you carry the analysis?
   (*b*) Why did you stop the differentiation where you did?
   (*c*) Why did you carry it as far as you did?
   (*d*) Did you carry it to the same stage on all items? If so, why; and if not, why not?
   (*e*) How did you arrive at the allocations for the major items?
   (*f*) How do you justify these allocations?

5. What factors would determine the number of items and the degree of differentiation in making up the detailed budget?

6. Assuming the following limiting conditions:

(*a*) A vocational program,
(*b*) A full-time day trade school of one hundred pupils,
(*c*) Courses in machine shop work, auto mechanics, and printing, all operating for two years,
(*d*) In addition to the trade school, an apprenticeship program in the building trades with 30 apprentices, 15 in bricklaying and 15 in house carpentry, attending the trade school for four hours per week for technical and general vocational work, but receiving no shop instruction in the school,
(*e*) An economy wave in the community,
(*f*) Minimum teachers' salary of $2500 per year, your own salary as director $3000 per year, a coördinator working one-half time for the vocational program at an annual salary of $2000,
(*g*) The community is operating a junior high school program of the usual type with five different kinds of shops,
(*h*) An appropriation of $50,000 is available for the operation of the school for one fiscal year,

make up a budget for the operation of the school.

7. Prepare a form on which to submit the items developed under 6 above.

8. On the basis of the statements made in 6 above, at what intervals would you deem it necessary to take up the adjustment of the budget? Give reasons for your answer. How would your answer be affected, if at all, if the total sum available were $300,000?

9. Make a list of additional advantages and disadvantages in the use of a budget other than those included in the text on page 76.

10. Discuss the following thesis either *pro* or *con*. "The efficiency of a vocational program will increase in proportion as the administrator is not hampered in any way by restrictions on the purposes for which he may expend the funds placed at his disposal by the appropriating authority."

11. See if you can find in either National or State legislation (1) two cases of permanent and continuing appropriations, (2) one case of authorization separate from the appropriation, (3) one case of "lump sum" appropriation, and (4) one case of statutory and constitutional provisions.

12. Criticize the budget form illustrated on page 73 and suggest modifications necessary in order to make it applicable to a State program for vocational education.

13. Which in your opinion is better, an annual appropriation or a permanent and continuing appropriation? Why?

14. Which is better from the standpoint of budgeting, a permanent authorization with annual appropriations, or a permanent and continuing appropriation for a fixed number of years? Why?

CHAPTER V

SELECTION AND EMPLOYMENT OF STAFF MEMBERS

The value of any staff is determined by the degree to which each individual member of that staff is qualified and able to discharge his specifically delegated responsibilities and by the spirit with which he does his work coöperatively with other members of the staff. The problem of an administrator is, therefore, to secure and maintain, as far as it may be humanly possible, a staff composed entirely of persons who are well qualified and able to perform their duties. This is his major objective.

Whenever there is a new position to be filled or a new staff member to be appointed to fill a vacancy, the administrator is confronted with the problem of securing, from the group of individuals of whom he has knowledge, the person who, in his opinion, will be best able to fill that position satisfactorily. In dealing with this problem he may or may not be obliged to work under certain limiting conditions.

Under the first set of limiting conditions an administrator is free to select from an open field, solely on the basis of his best judgment. Under the second set of limiting conditions he is obliged to make his selection from a group restricted to those who have already qualified under a set of minimum official qualifications. The first situation is found in most commercial and industrial establishments. The second exists in most public organizations, such as governmental positions and many State and local positions.

Given an experienced administrator who knows the requirements of the job, the first situation theoretically makes for the employment of the most efficient staff personnel. Where the administrator does not know the requirements of the position or is inexperienced, the second method is theoretically preferable, since it will, at least, confine selection to the members of a group from which the obviously unfit have already been automatically excluded.

It is generally recognized that the establishment of minimum qualifications in the public service has come about very largely through the recognition of its value as a protective device against improper pressure upon appointing authorities when positions are to be filled. Since most administrative positions in vocational education are public in their character, the administrator of vocational education will usually find himself deeply concerned with the character of official minimum qualifications for the various positions on his staff, and will find it necessary to assume a considerable degree of responsibility for the setting up of such qualifications.

Getting the Specifications of the Job. — No matter how the qualifications are set up, it is assumed that there is a correlation between the qualifications as set up and the requirements of the job. In securing this correlation the administrator has the usual problem of fitting job requirements to individual characteristics and equipment. Evidently, the more closely the qualifications correlate with the job requirements, the more satisfactory will be the results obtained.

In practice there are three methods of securing this correlation. The first consists essentially in making a pure guess as to the requirements of the job and an equally pure guess as to the qualifications which will correlate with the first guess. This method is illustrated by a situation in which the only requirement set up for a vocational teacher trainer is the possession of a graduate degree in education. In this case the only guess that is made is that the teacher trainer must deal with education, and that the possession of a degree on the part of the applicant, regardless of how he earned the degree, represents the necessary training which will enable him to give satisfactory results on the job.

The second method consists in assembling different kinds of commonly accepted evidence, which, on the basis of a guess, it is estimated will give the ability to do the work, the job requirements of which have been determined in a very general way. Examples of this second method are the minimum requirements ordinarily set up in State plans for the employment of a vocational teacher. The two major factors considered are (1) a command of the occupation, and (2) the ability to teach. The two items

of acceptable evidence corresponding to these major factors are usually (1) a specified length of experience in the occupation, and (2) a specified amount of time spent in attendance on a teacher-training course.

A third method of setting up qualifications has only recently come into use. It consists of making a very careful analysis of the demands of the job, and a corresponding inventory of the personal characteristics and professional equipment of individuals who have been notably successful in discharging the responsibilities of the particular job in question. It may be noted that this method follows essentially the same procedure as that which is used in the development of tests on a research basis.

The carrying out of this method involves five steps: *first*, the determination of the character of the job, as, for example, that of a teacher trainer, department head, local supervisor, or State supervisor; *second*, the formulation and application of standards to a number of jobs of that particular character; *third*, as the result of the application of these standards, the identification of notably successful incumbents of these several positions; *fourth*, the determination of the particular equipment possessed by these notably successful incumbents and not possessed by those whose work has been of a distinctly inferior character; and *fifth*, the setting up of qualifications on the basis of the information secured through carrying out the fourth step.

As an illustration of the application of this procedure in actual practice, there is given here a brief description of the way in which it was carried out by the staff of the Federal Board for Vocational Education in determining the minimum acceptable qualifications for teacher trainers.

It was first recognized that teacher training is one form of vocational education, and hence can be measured by the same standards as any other type of vocational education. The standards selected were the sixteen points enumerated on page 211 of "Vocational Education in a Democracy," by Prosser and Allen. The efficiency of the teacher-training programs in each of the several States was evaluated in terms of these sixteen points, and an index figure determined for each State. A comparison of the known characteristics, equipment, and training

of the teacher trainers in the various States, with the index figures, made it possible to establish certain correlations. For example, where the index figure was high, it invariably appeared that the teacher trainer had had some degree of actual practical experience. The minimum qualifications believed to be essential for efficient work as a teacher trainer in trade and industrial vocational education, as based upon the correlations secured, were as follows:

SUGGESTED MINIMUM QUALIFICATIONS FOR TEACHER TRAINERS IN TRADE AND INDUSTRIAL EDUCATION

I. Experience.

1. *Trade.* — At least three years of practical working experience as a wage earner in a trade or industrial occupation.
2. *Teaching.* — At least two years of successful experience (with a minimum of 144 clock hours per year) as a teacher of approved trade preparatory or trade extension classes which meet the standards of the State plan.
3. *Supervisory.* — At least three years of experience in a responsible administrative or supervisory capacity in the field of trade and industrial education of vocational grade.

II. Education.

1. *Professional.* — The equivalent of 540 clock hours in approved educational subjects, including —
   - *a.* Philosophy of vocational education.
   - *b.* Supervision and administration of trade and industrial schools.
   - *c.* Making and utilization of trade and job analyses for training trade teachers and organization of content for training courses.
   - *d.* Methods of training trade teachers.
2. *General.* — The Federal Board believes that the foregoing experience and special training are necessary and essential qualifications, since they have a direct and vital bearing upon the successful carrying on of a program for training trade and industrial teachers. The teacher trainers who have demonstrated their success in training trade and industrial teachers in the several States possess a very wide diversity of academic attainment and general education. In view of this fact, the Federal Board is not including any statement covering requirements for general education.

Through the following out of this same procedure, the following qualifications, believed to be the minimum which should be set up for local supervisors in charge of a functional supervisory program,

were also suggested for each of the three fields — agriculture, trades and industries, and home economics.

Minimum Qualifications for a Local Supervisor of Vocational Agriculture

I. Experience.

1. *Farm.* — The supervisor should at least meet the standards set up in the State plan for teachers of vocational agriculture.
2. *Teaching.* — He should have at least three years of successful experience as a teacher of agricultural subjects in an approved vocational school.
3. *Supervisory.* — Other things being equal, a person who has had supervisory or administrative experience is preferable.

II. Education.

1. *General.* — Graduation from a standard four-year agricultural course of college grade or the equivalent.
2. *Professional.* — From 12 to 15 semester hours in approved educational subjects under a qualified teacher trainer, including —
   - *a.* Supervision and administration of a program of vocational education in agriculture.
   - *b.* The making and utilization of occupational and job analyses for training agricultural teachers and organization of content for agricultural courses.
   - *c.* Methods of training agricultural teachers.

Minimum Qualifications for a Local Supervisor of Trade and Industrial Education

I. Experience.

1. *Trade.* — At least three years of practical working experience as a wage earner in a trade or industrial occupation.
2. *Teaching.* — At least two years of successful experience (with a minimum of 144 clock hours per year) as a teacher of approved trade preparatory or trade extension classes which meet the standards of the State plan.

II. Education.

1. *Professional.* — The equivalent of 180 clock hours in approved educational subjects under a qualified teacher trainer including —
   - *a.* Supervision and administration of trade and industrial schools.
   - *b.* Making and utilization of trade and job analyses for training trade teachers and organization of content for trade courses.
   - *c.* Methods of training trade teachers.
2. *General.* — See statement under same heading for qualifications of teacher trainers, page 85.

MINIMUM QUALIFICATIONS FOR LOCAL SUPERVISORS OF VOCATIONAL HOME ECONOMICS

I. Experience.

1. *Practical working experience.* — Equivalent of two years' home-making experience, part of which shall have been acquired in the actual management of a home. It is also desirable that such local supervisor shall have had adequate occupational experience or contact in wage-earning fields outside of teaching.

2. *Teaching experience.* — From two to three years' experience in vocational schools, including both day and evening classes meeting minimum standards set up by the State board and approved by the Federal board.

II. Education.

1. *Professional.* — Equivalent of 20 semester credit hours in education, including —

   a. Philosophy of vocational education.
   b. Special methods and supervised teaching in vocational schools and classes in home economics that meet the minimum standards provided in the State plan.
   c. Making analyses of teaching content in home economics and organizing the same on a teaching basis, in accordance with the needs of selected groups.
   d. Methods of training home economics teachers.

2. *Technical and general education.* — The minimum technical and general education of these local supervisors should exceed the minimum qualifications, provided in the State plan, for those teachers for whose professional improvement in service they are most largely responsible.

The use of this method involves a great deal of labor on the part of the administrative officer and the members of his staff, but where thoroughly carried out it obviously leads to more reliable results than either of the first two methods as described in preceding paragraphs.

Factors Considered in Setting Up Minimum Qualifications. — The factors that are commonly incorporated into minimum qualifications for a number of common pay roll jobs in vocational education are indicated by an asterisk (*) in Table No. 10.

Wherever an asterisk (*) appears under the various qualification headings in Table No. 10, it indicates that some requirement

TABLE No. 10

Commonly Accepted Factors Included in Minimum Qualifications for Certain Pay Roll Jobs

Pay Roll Jobs	Experience				Education			Personal			
	1 Practical	2 Teaching	3 Supervisory	4 Administrative	5 Professional	6 Technical	7 General	8 Age	9 Sex	10 Nationality	11 Individual Characteristics
1. Vocational teacher†	*	—	—	—	*	*	*	*	—	—	—
2. Related-subject teacher	*	—	—	—	*	*	*	*	—	—	—
3. Non-vocational teacher	—	*	—	—	*	—	*	*	—	—	—
4. Department head in vocational school	*	*	—	—	*	*	*	*	—	—	—
5. Principal of vocational school	*	*	*	*	*	*	*	*	—	—	—
6. Local supervisor	*	*	*	*	*	*	*	*	—	—	—
7. Vocational counselor	*	—	—	—	*	—	*	*	—	—	—
8. Coördinator	*	*	*	—	*	—	*	*	—	—	—
9. Teacher trainer	*	*	*	—	*	—	*	*	—	—	—
10. State Supervisor	*	*	*	*	*	—	*	*	—	—	—
11. State director	—	*	*	*	*	—	*	*	—	—	—

† The term " vocational teacher " is used to designate the shop teacher or the teacher of the particular vocation for which the course is organized.

of that character is commonly included in minimum qualifications for that particular pay roll job. The asterisk does not indicate the amount or specify the character of the acceptable evidence. For example, in the case of a vocational teacher, while the table indicates that practical experience is always required, it does not indicate the amount or nature of that experience or the character of the evidence that is accepted as showing that a given individual has the minimum required qualification.

Where the sign (—) appears in the table, it indicates that that particular element is not ordinarily considered in setting up minimum qualifications for that particular pay roll job. The table gives for each pay roll job, however, the elements which determine the acceptable evidence that appears in these specifications; thus, for example, in the case of a related-subject teacher, it appears from the table that there should be included in the specifications a certain amount of practical experience, a certain amount of professional training, of technical training, and of general education, and that age limitations are usually represented. Sex, nationality, and individual characteristics do not commonly appear in the specifications for qualifications. They have been included in the table because they are factors which in practice are taken into consideration in making selections from eligible lists, the eligible lists being composed of the persons who have met the minimum qualifications.

An examination of Table No. 10 shows that, in all of these various positions, professional education, general education, and age are included. The jobs listed in the first column are regarded as pay roll jobs, rather than functional jobs, since qualifications are always set up on the basis of particular pay roll jobs. Since a State supervisor is responsible for a certain amount of administrative work aside from his purely supervisory function, the table indicates the need of an administrative qualification which would not appear if the table had been set up on a purely functional basis. The same statement applies equally well to a local supervisor.

Selection of Personnel by Informal Methods. — Whenever an administrator has occasion to make a recommendation for an appointment, he selects an individual or individuals from what

may be called an eligible group. The characteristics of this eligible group consist in their actual or assumed ability to meet the qualifications set up for the position. These qualifications may not be formally organized and presented; but, in whatever way the operation is carried out, it involves the process of acceptance and rejection on some basis of evaluation.

The first step in establishing an eligible group is to secure the names of people who are eligible. There are practically four typical informal procedures which may be followed:

1. The vacancy may be advertised through some publicity medium, and acceptance or rejection may be based upon information directly furnished by the applicant, consciously or unconsciously — consciously through information given in response to questions, and quite frequently unconsciously in a personal interview.

2. A second method consists in securing information with regard to eligibles from sources of information believed by the administrator to be reliable, without any advertisement on his part that a position is to be filled. This is one of the most common procedures in the educational field. For example, when a State director wishes to secure a qualified person to fill a vacancy on the supervisory staff, he may write to persons in whose judgment he has confidence and ask them to submit to him one or more names of persons who they believe would be interested in securing this position, and who in their judgment would be competent.

3. The third procedure is the ordinary utilization of some employment agency. This procedure is much more common in the field of general education than it is in that of vocational education. It finds its greatest use in connection with positions for which the qualifications have been highly standardized and in which a large number of people are employed, thus making such an employment service commercially profitable. In certain instances, service of this kind is rendered on a non-commercial basis. It is a common practice on the part of colleges and universities to secure, from their alumni, lists of those desiring positions, and to assist them in securing such positions.

4. Under certain conditions, particularly where a new position has been created, there may be set up special qualifications for

that position and special examinations or other special procedures may be utilized in order to secure a group of qualified applicants from which selection may be made.

The Selection of Personnel by Formal Methods. — The four procedures just described utilize what may be called informal methods in securing an eligible group. Where definite civil service rules and regulations are enforced, as in many National, State, and local positions, a civil service agency is charged with the responsibility of securing and maintaining a list of eligibles for the various positions covered under the civil service rules.

It may be noted that according to the first four procedures the eligible group is essentially of a temporary character, while under civil service conditions there is maintained, at least theoretically, by the civil service commission, a permanent group of eligibles from which selections may be made at any time. Under these conditions the members of the eligible group have been given some kind of relative rating which often restricts selection still further, as in the case of the United States Civil Service regulations. It may be further noted that, in all but the second procedure, the eligible group is made up of individuals who have already indicated a desire to secure that particular kind of employment, while under the second procedure the applicant may not know that he is " under observation " or even that there is a vacancy with regard to which he is under consideration.

Relative Values of the Different Procedures. — The relative values of the different procedures, from the standpoint of their use by an administrator in securing the best personnel, depend essentially upon two factors. The first factor is ease of administration; the second is the grade of the position or its special requirements. When standardized jobs are under consideration, the easiest procedure for an administrator to follow is the formal one. This may be true in the case of an office manager securing a stenographer for regular routine office work; he can make his selection from an eligible list already made up by an employment agency, and to this extent save himself unnecessary work. On the other hand, when the position requires special knowledge, special skill, and unique characteristics of any kind, some type of informal procedure has seemed to be the most satisfactory.

Selecting from the Eligible List. — Whether an eligible list has been secured through the use of formal or informal methods, an administrator has the problem of selecting from that list an individual or certain individuals whom in the exercise of his best judgment, he considers worthy of a recommendation to his superior authority for appointment. Such a selective decision may be based upon a wide variety of reasons which have been taken into consideration by the administrator, but the following may be taken as typical of those that affect his decision under normal conditions:

1. The administrator is satisfied that the individual recommended is better qualified to meet the demands of the particular position under consideration than is any other applicant.

2. The administrator believes that the applicant is his best "prospect." The applicant is not particularly well equipped but the administrator believes that with experience on the job he will become a decidedly satisfactory incumbent.

3. The administrator believes that the applicant is particularly well adapted for future use in the organization in some capacity other than that for which he is to be immediately employed. For example, the administrator anticipates that within a year a new position is to be created. He is desirous of securing an individual, who, in his opinion, will be able to fill that position when it is created and who in the meantime can become acquainted with the organization in some capacity other than that of the position which is to be filled at that time. In making a selection the administrator may be actuated by considerations other than his belief in the actual ability of the individual recommended; hence, under such conditions his recommendation or his selection may be based on such factors as religion, politics, fraternal relations, or social or academic standing.

4. The selection may be based upon the fact that the individual selected is the cheapest man — that is, he is willing to take the position for the least salary.

5. It may be that the individual selected is the only one that can meet the minimum qualifications.

6. The decision may be made on the theory of "taking a chance," on the ground that the only way to determine an ap-

pointee's real qualifications is to employ him for a probationary period.

Bases of Selection. — Selections may be made on the basis of " paper " qualifications, but this is exceedingly poor administrative practice. It is safe to say that only under the most extraordinary conditions should an administrator recommend an applicant without first having secured a personal interview with him. This is true, if for no other reason, because the administrator is likely to be placed in a very awkward situation before the appointing authority if he recommends an individual whom he has never seen. This means that a personal interview is a practical necessity. The value of such an interview is two-fold: first, it affords the administrator an opportunity to note the physical and mental characteristics of the applicant and generally to evaluate him in terms of the job requirements; second, it gives the applicant an opportunity to " size up " the administrator and the job, and to decide whether or not he believes the job is attractive to him and is one that he can successfully handle. This latter aspect of the personal interview is not so generally recognized.

Every administrator must carefully guard against an applicant's taking a position without fully understanding the working conditions, which include not only the concrete job requirements but also the personal characteristics of his superior. A failure to fit into the job environment after appointment is one of the greatest sources of weakness in morale and of general dissatisfaction, and creates some of the most difficult situations with which an administrator has to deal. Many of these possibilities may be avoided if the applicant is given an opportunity to decide whether or not the administrator is the kind of person with whom he feels that he can work successfully, and it is no discredit to him if he decides adversely. He is at least as much entitled to an opportunity to secure this information as the administrator is to an opportunity to find out whether or not the applicant is one with whom he himself can work efficiently.

Under ordinary conditions, an administrator interviews more than one applicant. Having done this, he then balances, to the best of his ability, his estimation of the various applicants, not only on the basis of the interviews, but also on the basis of all

other information, and sets up a preferred order among the several applicants whom he believes particularly satisfactory. It must be borne in mind that under these conditions the administrator has no absolute guarantee that any of the applicants will accept the position; nor should he, during the interview, endeavor to secure such a statement.

There are two reasons why this request should not be made. In the first place, the kind of staff member that he ultimately hopes to secure, if employed in some other position, would not agree to accept a new position until he had made satisfactory arrangements with his present employers for a release. In the second place, the administrator should not be willing to tie himself up, either by implied or actual promises, because he himself, as a rule, does not have the final appointing power, and in most cases he would want to arrange an informal conference between the candidate and the appointing authority before making his final recommendation.

Dangers in Preliminary Selections. — It has been said that the English language is susceptible of more different interpretations than is any other language. During the whole period of preliminary negotiations with any applicant, there are certain very serious dangers which, if not carefully avoided by the administrator, may place him in a number of seriously embarrassing situations. An invitation to an interview, whether written, wired, or given orally, does not carry with it a promise, either expressed or implied, that a recommendation for appointment will necessarily be made. Nevertheless, it has often been so interpreted by applicants. An applicant who is anxious to secure a job will consciously or unconsciously interpret every bit of evidence in his own favor.

A second danger is that the applicant may not be desirous of securing the position at all, but may merely wish to use the proposal as a lever to secure some advantage in his present job. This does not directly affect the administrator; but, in so far as it results in any impression that he has been a party to such a procedure, it may cause him serious embarrassment, especially if he has any official relation with the employers of the applicant in question.

The third danger that arises out of this selective procedure is the

chance that the individual who is an applicant may give wide publicity to the fact that there is a vacancy, under conditions where such information will cause unnecessary embarrassment to the administrator and to the appointing authority.

It should not be understood from this discussion that the policy of the administrator or of the appointing authority should be one of definite secrecy with regard to vacancies and prospective appointments. This is not the way to conduct public business. Nevertheless, both the administrator and the appointing authority are justified in protecting themselves against totally unnecessary and disagreeable experiences. For example, a long interval between a known resignation and an appointment to fill the vacancy is likely to have a bad effect upon the morale of the organization.

One of the common devices for prolonging such a period between a resignation and the filling of the vacancy is to appoint some member of the staff in an acting capacity. Such a procedure may be justified under certain extreme emergency conditions and for a short period of time, but in general it is not just to the individual, to the individual's regular job, or to the job that is to be filled. Where this procedure is followed for a long period of time it will almost inevitably lead to the inference on the part of outsiders that the person who has temporarily filled the job has been tried out and "found wanting." This inference will be drawn in spite of the fact that the clearest possible understanding may have existed between this individual and the administrator.

Employment of Individuals Selected. — The consummation of the appointment means both "selling" the individual in question to the appointing authority and "selling" the job to the applicant. The fact that the administrator has selected a certain individual does not necessarily mean that that individual has selected the administrator or the job. As a matter of fact, really desirable people have to be separated from their present jobs with some effort, and it is equally true that an appointing authority must be convinced that the individual recommended is the best man for the job and the one that should be appointed.

The Probability of Appointment of Individual Recommended. — The probability that the appointing authorities will act favorably upon the recommendation of the administrator depends upon

several different conditions. From the standpoint of the appointing authority, situations range all the way from an earnest desire to appoint the individual best equipped, to one of little concern for the job itself, and of maximum concern for such factors as religion, political considerations, fraternal relations, or possibly social standing. Again, the action of the appointing authority may be largely affected by their confidence or lack of confidence in the ability, or possibly the disinterestedness of the administrator himself, and will certainly be seriously affected by the relations existing between the members of the group forming the superior authority and the administrator.

As a matter of fact, there are but four typical situations which may exist in the making of appointments: (1) The appointing authority may be seriously desirous of getting the best individual for the job, and this may be equally true of the administrator whose duty it is to make the selection and nomination; (2) the appointing authority may be affected by political or personal considerations rather than by a sincere interest in getting the best man on the job, whereas the administrator may only be desirous of getting the best man for the job; (3) the appointing authority may be actuated solely by correct motives and the administrator may be actuated by such motives as educational politics, favoritism, patronage, or by a desire to build up an individual machine within the organization; and (4) the appointing authority may be actuated by improper motives, and this may be equally true of the administrator. The foregoing statements simply mean that administrators and appointing authorities, being human, represent all kinds of cross sections of human characteristics, ranging all the way from excellent to inferior. The particular situation that will exist in any given organization will depend upon the way in which the appointing authority and the administrator happen to "pair up" as mentioned in the four possible conditions given above.

So far as the discussions in this chapter are concerned, only two of these four possible situations are considered: first, the situation in which the appointing authority and the administrator are both actuated by proper motives; and second, the situation in which the administrator is actuated by proper motives, and

the appointing authority is more or less influenced by other motives. In other words, the discussion is directed along the lines of assumed good or fair administrative conditions.

In either of these two cases the administrator must possess the necessary facts. In the first case, where the board is fully conscious of its responsibility, and is conscientiously anxious to discharge it to the best advantage of the program, it will want full information on every point. In the second case, where members of the board may be more or less actuated by other considerations, a full and clear presentation of the facts which will bear publicity is the best antidote for the situation. Incidentally, the administrator who is fully equipped with satisfactory reasons for his recommendations secures and holds the respect of his appointing board to a much greater extent than one who shows himself ignorant of facts relating to a recommendation for appointment on his staff.

Concluding the Appointment. — The final stage in the procedure is the actual appointment by the superior authority. As soon as this action has been consummated, the administrator is faced with all the questions involved in placing the appointee on the job. In the great majority of cases, the appointee is already employed elsewhere, except in cases of promotion within the organization. In either case, it is a responsibility of the administrator to see that all necessary arrangements are made, so that, in justice to all interested parties, the new appointee may take up his duties with a fair chance of making good, and in such a manner that all ethical and professional standards are fully met.

In many cases the new appointee will reside at a distance from the locality to which his new duties call him, and it may be an expensive matter for him to transfer himself and his family to his new post. This move is important, since he must undergo a period of probation from the standpoint of his new employers, and since the new job must, in a way, be put on probation by the individual himself. These facts must often be taken into consideration in the negotiations as to how, when, and where the new appointee is to take up his new duties, and such consideration is only fair to both parties.

Again, certain questions involving professional ethics of another

type are often involved. It is now generally regarded as professionally unethical for an administrator to offer to recommend for appointment a member of another administrator's staff without securing a satisfactory release in advance. The ethical procedure consists in consummating an arrangement whereby everybody is satisfied. This usually involves nothing more than a courteous inquiry as to the willingness of the other employer to release the individual in question. Under other circumstances it may involve the postponement of the time at which the new appointee will enter upon his new duties. Most of the information bearing upon such matters should be in the possession of the administrator before he selects a given individual from the eligible list. For instance, he should know whether the applicant is under a long-time contract and whether his employer is willing to release him.

As a rule, administrators take either one of two attitudes with regard to resignations from their staff for the purpose of taking other positions. The first attitude is that taken by an administrator who will not stand in the way of an opportunity for advancement which may come to any member of his staff. The second is that of the administrator who will do all that he can to prevent a member of his staff from securing another position, as long as he feels that that individual is valuable on his own staff. Through previous personal knowledge, through a personal interview with the applicant, or through other sources of information, an administrator should be fairly well informed as to which type of official he is dealing with in connection with any appointment.

Probationary Period. — In certain cases, notably in the case of employment by the Federal Government, there is required a definite official probationary period for all new appointees who come under the civil service rules and regulations. Under most conditions there is no formal probationary period in connection with appointments in vocational education. In all cases, however, there is a period corresponding to probation, during which the administrator is observing the new staff member.

During this period the administrator should be giving more attention to observing the development of the new appointee than he will after he has become satisfied as to the ability of the

individual in question. The chief importance of this "probationary period," from the standpoint of this discussion, is that it is the period during which any administrator who is fully conscious of his responsibilities should see that the new incumbent receives whatever special assistance he may need in adjusting himself to his new environment. This responsibility for protecting the new appointee is unfortunately one that has not always been as fully recognized as it should have been by many administrators. In many cases the lack of such special assistance has resulted in the failure of a well-qualified individual to learn his full responsibilities and the best means of discharging them, at least as well as he could have done had he been assisted over the rough spots at the beginning.

The Retention of Staff Members. — In an educational organization, as in any other organization, whenever separations occur there is an unavoidable replacement cost. In the case of an industrial concern this replacement cost appears, at least to some extent, in the form of dollars and cents. In the case of an educational organization this same replacement cost appears in the form of a setback to the program, which can not be estimated in terms of dollars and cents.

Realizing this fact, an administrator, having once secured the appointment of a qualified individual as a member of his staff, should look upon a separation as a last resort or device for improving conditions in his personnel. Hence, in vocational education or in any other type of educational work, an administrator, having once attached a given individual to his staff, generally has the problem of building up that individual with respect to his special weak points. Since all human beings have their strong and their weak points, the administrator who assumes this responsibility will find that he has a continuous educational program in upgrading each member of his staff.

Under modern personnel management, a compulsory separation from any organization is generally regarded as evidence of poor administration, either in the original selection or in the subsequent personnel management used in dealing with the situation. This conception imposes upon an administrator another special responsibility which he must know how to dis-

charge in an effective manner. This not only involves questions of personnel management but also calls for a certain amount of managerial ability in fitting different individuals into the organization.

Fitting Individuals into the Organization. — It has already been stated that no individual is perfectly balanced in regard to his qualifications for specific job demands. A staff is not composed of supermen but of human beings with all their strengths and weaknesses; therefore, it will always be found that some are better fitted than others, by aptitudes, by personal characteristics, or by interest, to perform some particular functions. Theoretically, each member of the staff can do any part of the job with average efficiency; in practice, it will be found that certain individuals can do certain portions of the work better than the other members of the staff. An administrator should take advantage of this situation by seeing that individual abilities are used, as far as possible, to the maximum degree. This may even mean, in certain cases, letting the " individual make his own job " within the general objectives of the vocational program. As in the organization of a football team, the members should be placed in line for the best team work.

It is recognized to-day that an opportunity for advancement in any organization is one of the strongest incentives to individual effort, and when properly handled becomes one of the strongest promoters of organization morale. The converse of the foregoing statement is equally true. In most educational organizations, as in other organizations, two distinct policies may be found as to promotions. The first policy is that of the " closed door " and the second policy may be designated as that of the " open door." According to the first policy, certain grades of positions are filled only by bringing in people from outside of the organization. At this point the line of advancement is absolutely blocked. In other words, if a State board for vocational education desires the services of a supervisor on its staff, under the " closed door " policy it would secure a supervisor from the staff of another State board for vocational education. Under the " open door " policy it would fill the position by promotion from some local position, such as that of a local supervisor of vocational education or a

director of a vocational school. The policy of promoting from within the organization is generally regarded as the better one. On the other hand, there may, at various times, be special situations which make a departure from this policy necessary.

Promotions. — So far as promotions within the organization are concerned, they involve exactly the same administrative problems as are involved in the selection and initial appointment of staff members, except for the fact that the administrator should be much more familiar with the actual strong and weak points of any individual where advancement is under consideration. In making promotions, either one of two policies may be followed. The first is the policy of promoting on the basis of demonstrated ability, and the other is the so-called automatic promotion. The first of these policies makes for difficult administration and for a more efficient organization, both from the standpoint of service and with regard to individual morale. The second makes for much easier administration, but results in a less efficient organization.

Salaries. — There are two general problems which confront an administrator with respect to salaries, the first having to do with initial salaries and the second with salary increases.

In vocational education, one of the most difficult problems with which an administrator must deal is that of securing authority from his board to provide initial salaries such as will induce occupationally competent persons to become members of his staff and remain in positions connected with the operation of the vocational educational program. This is perhaps more particularly true in the case of practical or " shop " instructors, but applies in general to the whole question of securing and maintaining a competent personnel.

In general educational work, the teacher has only one occupation, that of teaching. In vocational educational work, the teacher, if he is occupationally competent, has two occupations, that of an instructor or other staff member, and his former occupation, to which he can return at any time, often to his financial advantage. The fact that his potential earning capacity in his former occupation is always in competition with his earning ability in the educational field is not always recognized by ad-

ministrative authorities, with the result that in some organizations there is a continual loss of desirable members of the operating personnel, with a corresponding replacement cost and loss of morale.

For this reason it is often very difficult for an administrator of vocational education to get his superior authority to recognize the facts of the case. His problem is to obtain such salaries or salary schedules as will enable him to secure and retain really desirable personnel material, and to prevent discrimination between those who have spent their time in securing the mastery of an occupation and those who have spent their time in securing an advanced general education.

Salary Increases in Practice. — Salary increases, like promotions, may be granted according to either one of two distinct administrative policies: first, on the basis of recognition of demonstrated ability; and second, in keeping with a schedule providing more or less automatic increases based upon length of service or upon some other facts, such as efficiency ratings or group classifications.

In actual practice these two theories are combined in all kinds of ways. In the case of the Federal Government, salary increases are based upon the attainment of certain efficiency ratings provided under the Reclassification Act. These increases are further limited by certain salary schedules with maximum and minimum limits provided for each particular grade of service. In most ordinary school systems, salary increases are either automatic, or are based upon an assumed ability for which the acceptable evidence is frequently additional academic credit. In other cases, salary increases are purely a matter of bargaining between the individual and his superior authority.

Automatic salary increases, based upon length of service or upon the meeting of officially specified additional qualifications, such as additional college credit, or upon the attainment of certain efficiency ratings, apparently make for easy administration. It is doubtful if they make for increased efficiency. Many of those attending summer schools in colleges and universities for the purpose of obtaining additional college credit in order to secure salary increases, profit much less than is generally assumed in increased efficiency on the job. The reasons for their failure to profit more are two in number. First, attendance on any

educational program, under pressure or compulsion, does not, as a rule, lead to a high degree of ability to profit by the instruction; second, the requirements, as drawn, seldom call for the selection of work that specifically functions in the job of the individual. So long as such an individual is only required to show additional college credit, he may select his courses in accordance with any one of a variety of motives.

In many cases, the kind of training that would really function on his job as an instructor or supervisor in vocational education would not be represented by the content of a college course, but would consist of some other totally different experience, such as a return to his former occupation for additional practical experience, or for the purpose of bringing his occupational knowledge up to date.

The discussions in this chapter have called attention to certain problems which confront the administrator, and certain policies which it is believed he should follow with respect to promotion, salary increases, and rating schemes. The various theories, and the various procedures through which these different theories have been put into practice, are embodied in all degrees of detail in publications which are accessible to the reader and to which he can refer if he so desires. For example, the exceedingly complicated system of reclassification and of efficiency ratings with regard to salary schedules now in force in Federal departments can be readily secured through Federal publications, from the Superintendent of Documents, Government Printing Office, Washington, D. C. Various books dealing with this subject are commonly included in all educational libraries.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. It is desired to establish minimum qualifications for employment as a vocational instructor. Make an analysis of the major responsibilities of an instructor for any selected occupation drawn from any field of vocational education with which you are familiar, and rate these responsibilities on the basis of a scale running from 0 to 10. On the basis of this rating, set up specifications for minimum qualifications, and give your reasons for the particular character of acceptable evidence which you incorporate into your specifications.

2. Using Table No. 10, page 88, as a starting point, set up the specifications for the principal of a girls' trade school.

3. Set up a similar set of specifications for a State supervisor in trade and industrial education, in agr cultural education, in home economics education, or in commercial education, according to the particular field with which you are most familiar.

4. You will find on page 201 of Chapter IX a set of ten fundamental characteristics of a vocational program. Make up a corresponding set of fundamental characteristics by which you can evaluate the efficiency of a local supervisor's program. Give reasons for the particular characteristics selected.

5. Assume that you have applied the fundamental characteristics which you set up for a local supervisor to fifteen supervisory programs with which you are familiar, and that you have secured the following rough scores: 8, 4, 7, 9, 2, 1, 3, 6, 8, 5, 2, 1, 7, 9, 3. In all of the foregoing programs scoring over 7, the supervisor has had from three to five years' teaching experience in general education. In all programs scoring over 8, the supervisor has had teaching experience in that particular field of vocational education which he is supervising. In all programs scoring over 5 he holds a baccalaureate or master's degree. In all programs scoring over 7 he is over 35 years of age. On the basis of the above data make up a set of specifications for the minimum qualifications for a local supervisor. (The above specifications are entirely imaginary, and therefore could not be checked against those given on page 86.)

6. What should be the difference between the minimum necessary for general education required of a coördinator and of the principal of a vocational school? Why?

7. Make a list of individual characteristics which you believe should be taken into consideration on any one of the pay roll jobs listed in Table No. 10, page 88.

8. There are two candidates for the principalship of a boys' trade school. Both are eligible for appointment, so far as the minimum qualifications are concerned. What additional factors would you take into consideration in making a selection between the two?

9. In evaluating these factors, which of the following methods would you utilize: (*a*) a personal interview, (*b*) written testimony, (*c*) a photograph, (*d*) letters of recommendation, and (*e*) an observation of the individual at work on his present job?

10. If you wish to combine these different factors, how would you combine them in the most efficient way?

11. Rate the procedures given on a scale of 0 to 10, showing their relative value in enabling an administrator to make the most intelligent selection, where only one of these factors is assumed to be used.

12. Give in detail the advantages and disadvantages of the system of automatic promotion.

13. Repeat the above with respect to automatic salary increases.

14. If you were recommending an individual for the position of State supervisor of agricultural education, what information would you consider it necessary to have in presenting your recommendation to the appointing board?

15. As an administrator you have occasion to make a recommendation for an appointment to be approved by a board of six members. Three members of the board are interested only in securing the best-equipped individual. Two members of the board believe that the new appointee should be a member of their particular political party. The sixth member of the board is a man who always goes with the majority. How would you deal with this situation?

16. Discuss the advantages and disadvantages of a salary schedule based upon efficiency ratings alone.

CHAPTER VI

DETERMINING LOCATIONS AND PLANS FOR SCHOOLS

Preliminary. — The responsibility of an administrator in connection with the determination of locations and plans for school buildings represents one phase of his responsibility for bringing a teacher and his students together under working conditions which will permit of efficient instruction. In discharging this function the administrator has a dual responsibility to society: first, he is responsible to the superior authority which is charged by society with the ultimate responsibility for education in that community; second, he is responsible to society at large for the efficient carrying on of the particular enterprise for which society contributes the funds, and from which it expects to derive adequate returns. The first is a recognized official responsibility. The second is a responsibility which in many cases is not recognized, either by the administrator or by his board. Many administrators are fully conscious of their official responsibility to the superior authority, but fail, wholly or in part, to recognize the ultimate responsibility to society which rests upon both the administrator and the superior authority.

The Parties in Interest. — Any question involving the location, plans, and construction of vocational school buildings requires the coöperative efforts of certain functions as represented by certain individuals or groups of individuals. These functions can be designated as the architectural function, the administrative function, the function of the constructor and builder, and the function of the superior authority. To the degree to which these various functions are properly allocated and discharged the community gets what it has a right to expect from its investment. In proportion as these functions are not properly allocated or discharged the community does not receive full returns from its investment.

The real value received by a community from any building is

not represented by its architectural beauty, or by its cost, but by the degree to which it provides those things which make possible the efficient carrying on of some form of human activity. In the case under discussion, this activity is some form of vocational education.

The Need for the Realization of Limitations of Function. — In order that this objective may be successfully attained, it is necessary that each of the coöperating agencies fully realize its responsibilities and its limitations. For example, if the superior authority undertakes to determine what shall be the particular lay-out of a given building, or the administrator undertakes to discharge the functions of the architect, or the architect undertakes to discharge the functions of the administrator, the results are bound to be unsatisfactory, not only from the standpoint of working relations but also from the standpoint of the ultimate value secured.

Some Wrong Conceptions. — There are a number of typically wrong conceptions which have occurred all too frequently in connection with locating and constructing school buildings. For example, an administrator may assume the duties of the architect. Because he is responsible for providing proper working facilities, he may assume that he is also responsible for the technical construction which will make such facilities possible. Again, only too frequently, an architect, regarding a school building purely as an architectural problem, fails to realize the limitations of his own responsibilities, which are to construct a building around an educational enterprise, rather than to construct it as a monument or as an evidence of his architectural ability.

In any case involving the location and erection of school buildings, there are two distinct problems. There is what may be called the *educational engineering problem*, which has to do with the creation of conditions that make possible the greatest efficiency in the actual carrying out of the particular educational enterprise. Distinct from this problem are the *mechanical problems* of construction, the correct solution of which makes the working conditions possible.

Unfortunately, these two problems lead all too often into certain conflicting viewpoints and interests. To the architect, the build-

ing is a professional problem. He naturally looks to professional advantage, and to the planning and construction of a building which will be commended by critics in his own profession. He further realizes that the public at large, being laymen as far as educational efficiency is concerned, gauge the degree to which they have received their money's worth by the external appearance of the building, its superficial interior appearance, and perhaps its cost. The architect is also under all sorts of pressure from planning commissions and community improvement organizations, composed of people who know very little about educational efficiency and oftentimes care less, to create what they regard as a monument which will add to the general civic beauty of the city or community, or which will conform to some general plan of civic improvement already under way.

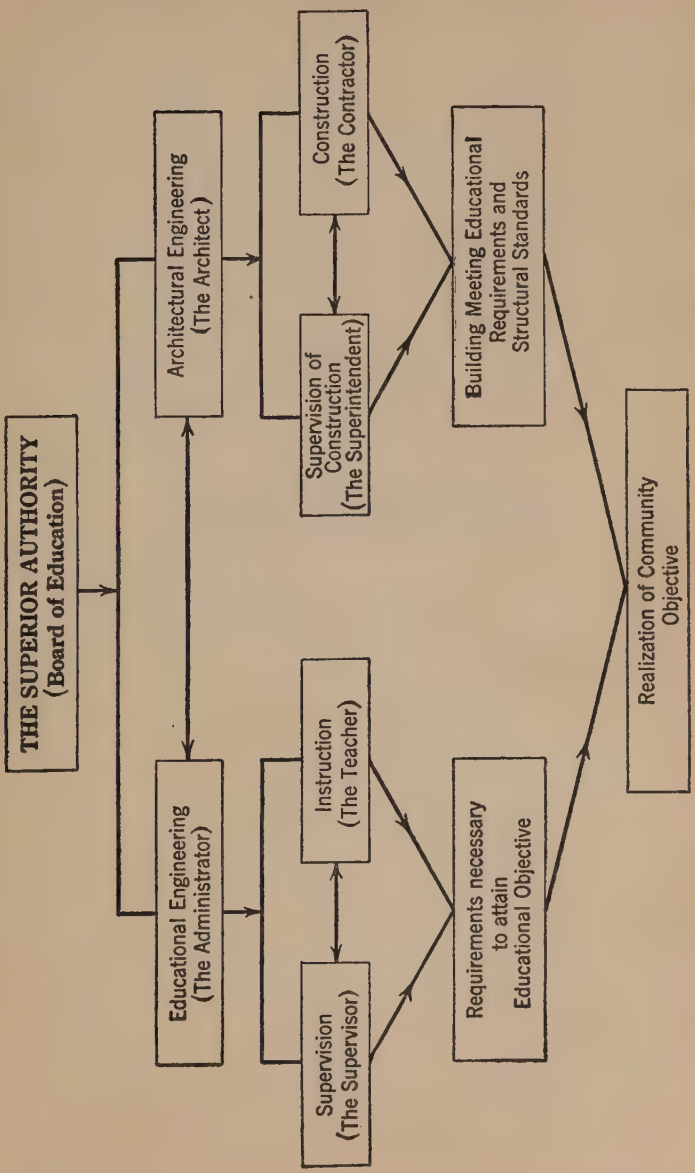
The administrator and his staff represent an entirely different group, a group often knowing little or nothing about constructional details and limitations, and one not directly responsible for civic improvement, but very directly responsible for the efficiency of the vocational or other educational program which is to be carried on in the new building. All of these conflicting forces embody perfectly worthy motives.

The Three Possibilities. — Such fundamental differences almost inevitably lead to conflict, in which one of three things will occur: (1) the architect will dominate the situation, making the building an architectural monument at the expense of its educational value; (2) the educational staff will dominate at the expense of architectural beauty and proper construction at reasonable cost; or (3) the two responsible groups will get together on the basis of a compromise and full coöperation, and give to the community the largest possible return for the money it has put in the building, both architecturally and educationally.

It may be pointed out, further, that the superior authority, being itself practically a lay body with respect to educational efficiency, is much more likely to take the view of the architect than that of the educational administrator.

Functional Distribution. — The proper functional distribution of responsibilities in the construction of a building is indicated in Chart No. 5.

CHART No. 5
FUNCTIONS IN BUILDING CONSTRUCTION



For example, a city board of education, as the superior authority, has at its disposal an appropriation for the construction of buildings. The community objective is to provide a building in which a local program of vocational education can be efficiently carried on. The administrator and his staff should determine all details relating to the type of organization. As an illustration, they should determine whether the building will house an all-day preëmployment vocational school, a part-time school, an evening school, a coöperative apprenticeship program, or any combination of these typical organizations. They should determine the necessary allocations of floor space for the carrying on of the various activities, and the general conditions as to the relation of shop space to classroom space, special lighting facilities, and other special provisions, such as a demonstration apartment for use in home economics classes, or a special laboratory for agricultural demonstration work. Details of this character constitute what is designated on Chart No. 5 as "Requirements Necessary to Attain Educational Objectives."

The architect, together with his staff, is responsible for all technical details of building construction which will make possible the meeting of the educational specifications. If both of these functions are intelligently and professionally discharged, the result will be a building in which the educational objectives can be realized with maximum efficiency and one that also meets the standards of good architecture and of building construction.

If the architectural function overbalances the educational function, the building may be perfectly satisfactory from the standpoint of the architect and builder, but extremely ill adapted to the work which it is intended to house. If the educational factor dominates, the building may be more or less unsatisfactory from the standpoint of the architect and builder, even though it conforms to all construction standards so far as safety and permanence are concerned.

Coöperative Relations. — It may be noted on Chart No. 5, page 109, that certain coöperative relations are indicated. The supervisory and instructing function must coöperate in their service to the administrator; there must be coöperative relations between the superintendent of construction and the contractor,

as the supporting service to the architect; and the official line of coöperation between these two staffs is carried on by the administrator and the architect.

From the Idea to the Building. — Whatever may be the special type of building, or the special purpose for which it is constructed, the whole procedure of securing a building should follow certain steps which may be designated as follows:

(1) Originating the idea.
(2) Setting up the educational specifications.
(3) Making preliminary plans.
(4) Designing the building.
(5) Checking up the design against the educational specifications.
(6) Agreement upon the final plan.
(7) Securing bids.
(8) Securing contracts.
(9) The actual construction of the building.
(10) Educational checking during the construction of the building.
(11) The final acceptance of the building.

The relative responsibilities for carrying out each of the foregoing eleven steps are indicated in Chart No. 5, page 109.

Factors to be Considered. — Whatever the special character of the building, or the purpose for which it is to be constructed, there are three major factors which must be given consideration. These are (1) the nature of the work to be done, (2) the locality which the school is to serve, and (3) the particular site on which the building is to be erected.

Nature of Work to be Done. — The particular type of work to be done is expressed in terms of the typical organization and the particular field of vocational education for which the building is to be used. The following are typical school organizations:

(1) The full-time day school.
(2) Various types of part-time schools, such as —
    (*a*) Continuation schools.
    (*b*) Preparatory schools.

(*c*) Extension schools.
(*d*) Coöperative schools.
(*e*) Opportunity schools.

(3) Evening schools.
(4) Vocational departments in high schools.

Theoretically, any of the above organizations may be established in connection with a program in the following fields of vocational education:

(1) Vocational agricultural education.
(2) Trade and industrial education.
(3) Vocational home economics education.
(4) Vocational commercial education.

Evidently there can be many different combinations, as, for example, an all-day trade preparatory school with an evening school giving trade extension work for adults, or a vocational department in a high school with an evening school for adults on an occupational extension basis, or a compulsory part-time continuation school combined with a full-time day school, together with evening trade extension classes.

The foregoing combinations can be cross-sectioned in any one of the given fields; for example, an agricultural department in a rural high school, with evening classes in home economics for adult women, and commercial classes for retail store employees, would constitute one combination. Evidently, the particular field or fields and the particular types of school organizations are the fundamental factors which should be taken into consideration in setting up the educational specification, as indicated in Chart No. 5.

Factors in Determining the Locality. — A school is commonly established to serve the needs of certain groups. The homes and places of employment of these groups are distributed in some way within the area over which the superior authority has jurisdiction, or which the particular building under consideration is intended to serve. The general question of locality will therefore be determined by the character of the groups to be served, by the places of residence and places of employment, by the trend

of community growth, and by the character of the policy of the superior authority, or of the administrator.

The building may be intended to serve one or more of the following typical groups:

(1) The adult employed group.
(2) Employed youth.
(3) Unemployed youth.

These groups may need service in any one of the following fields of human endeavor:

(1) Agriculture.
(2) Home economics.
(3) Commerce.
(4) Trade and industry.

It is evident that the three groups in the four fields, as enumerated above, can be combined so as to set up twelve different educational objectives.

In addition to these general objectives, it may be necessary or desirable, under certain conditions, to take into consideration certain problems arising from racial characteristics.

Community Trends Affecting Society. — In almost all urban communities, certain sections are changing in character from residential to industrial or commercial. The same situation likewise exists under certain conditions in agricultural communities. There is always the possibility that the development of manufacturing, based upon the use of agricultural products, may change the character of the groups needing service.

Where a building is to be constructed for a long period of service, cognizance should be taken of possible changes in the character of the locality in question. The problem is essentially the same as that which faces any public service corporation in attempting to keep its service abreast of the community development and the changing character of different sections of the community which it serves.

Policy Trends as Affecting Locality. — In the same way, there are often trends of policy on the part of the superior authority, or on the part of the administrator, which affect the question of

locality. For example, at this particular time there is a very general tendency to attach more importance to part-time cooperative organizations in agricultural, commercial, and trade and industrial vocational education than was attached to them several years ago. It is quite conceivable that a recognition of this trend may seriously affect the question of location for a proposed building. For example, the trend toward coöperative organizations may lead not only to the omission of all shops from a trade preparatory school, but may make necessary the location of the building in or adjacent to a manufacturing section of the community.

Another policy trend might have to do with group discrimination, which, up to the present time, has been decidedly against the adult and in favor of youth — that is, the trend of policy might change in the direction of increased emphasis upon service to the employed adult. In determining on a suitable location for a building that is to be used over a period of years, this change in trend of policy should be taken into consideration.

Factors in Determining School Sites. — There are certain factors which should be taken into consideration in determining the most desirable sites for a building within the chosen locality. The more important of these factors are as follows:

(1) the character of the neighborhood
(2) the transportation facilities
(3) the general surroundings
(4) the area available
(5) the value of the ground
(6) the topography of the ground and
(7) the accessibility of the site to the members of the groups to be served.

Character of Neighborhood. — The character of the neighborhood may be determined according to various standards, such as commercial, industrial, residential, and from the standpoint of the predominating activity. From another point of view, neighborhoods may be classified according to their assumed effect upon students, such as moral or immoral, high standards of living or poor standards of living, or with regard to race or nationality

of the inhabitants. A very common predominating factor is the assumed moral effect upon students. This factor is oftentimes over-rated in considering the location of a vocational school building, in fact, in considering the location of most school buildings, since questions of this kind depend much more upon where pupils live and play than upon where they attend school. After all, students are only exposed to such influences while entering or leaving the school building, and possibly for a short time during intermission. To the degree to which a vocational program deals with adults all such factors become much less important. Much of the consideration often given to the character of a neighborhood in locating a school is based upon the traditional conception of the school as a place attended only by children and youth.

Transportation Facilities. — It is obvious that a vocational school will be of service in proportion as it is easily accessible to those groups which it is intended to serve. The ordinary means of transportation are street cars, busses, and personally owned automobiles. On the whole, it can be assumed that the great bulk of those who have to use any form of transportation will take advantage of public transportation agencies, and therefore transportation facilities of this type should be given careful consideration. This does not mean necessarily that the building should be located upon a street car line or upon a boulevard, but that wherever it is located it should be possible for those attending school to avail themselves of satisfactory means of transportation to and from their homes and their places of employment.

General Surroundings. — A school is not located, by preference, amid such general surroundings as seriously interfere with its work. Such undesirable conditions may be due, for example, to obnoxious odors coming from a chemical manufacturing establishment, or to excessive noise coming from a boiler shop, steel plant, or railroad. In the same way it is undesirable to locate a school among high buildings that cut off the necessary light.

There has been a tendency to feel that, because a vocational school, and especially a trade school, partakes more or less of the character of a manufacturing establishment, conditions of the kind mentioned do not interfere with the work as seriously as they do in a purely academic school. As a matter of fact, this is not

the case. This mistaken idea has often resulted in the past in the location of a vocational school in undesirable surroundings. This is especially true in cases where such schools have been assigned to old buildings which had previously been used for academic work, where the neighborhood had changed from a residential or commercial to a manufacturing locality of a noisy or otherwise undesirable type.

Area Available. — In the past, the fundamental difficulty in securing a suitable area of land has been a failure to realize the fact that a vocational school requires more space than does an academic school housing the same number of pupils. In the first place, the number of square feet of floor space per pupil must be greater in a vocational school than it is in an academic school. This is particularly true where shop work is included in the curriculum of the vocational school. In the second place, it is frequently necessary to carry on vocational activities outside of the school building itself. In the third place, the ultimate character of the work to be carried on in a vocational school can never be predicted many years in advance, and there is always a possibility of necessary enlargements to meet the community needs or demands for additional vocational educational service of some kind.

The time will never come when vocational schools will be located geographically over the community or city in the same way as general schools are now located. Certain conditions, such as the necessary equipment and character of construction, have in the past tended, except in the case of very large cities, to concentrate vocational education in one or more centers, and to enlarge those centers as the program has developed, rather than to establish additional schools in other localities. For these reasons, the administrator, in choosing the site for vocational schools, must take into consideration the area available, and undertake to secure a tract of land in which there is a reasonable factor of safety with respect to future development.

The Question of Cost. — All other things being equal, the administrator should, on the one hand, try to select the site at which land is least expensive; but, on the other hand, he can not afford to allow this factor to become the predominating one. The im-

mediate problem which the administrator must solve is one of meeting other and more important conditions and then of selecting the site that is best suited to these other needs and can be secured with the smallest outlay of money.

Accessibility. — By accessibility is meant the ease with which those whom the school serves can travel to and from it. In the past there has been some misunderstanding in this respect, through failure to realize the difference between a vocational school and a general academic school. For example, a vocational school may frequently need to house a variety of different organizations, such as a part-time program, a full-time preëmployment program, a coöperative program of some kind, and an extension program; where, on the other hand, the general school has at most to deal with the unemployed youth and with extension work. In the case of the vocational school, there may come about more or less conflicting situations which do not exist in the case of the general school. For example, where a trade and industrial school is operating a coöperative apprenticeship program, where the apprentices attend school for four or more hours per week, coming to the school directly from their work, or going directly from the school to their jobs, evidently the school should be located near these places of employment. Where a school is primarily operating evening extension classes, it has been quite commonly considered that it should be located near the place of employment of its students, while, as a matter of fact, the great majority of such students go home after the close of their working day and come to the school, not from their places of employment, but from their homes. Where a school is conducting a preëmployment training course of a non-coöperating character, the young people who pursue this course come to school directly from the places where they live, in the same way as they would come to any general school. If, however, the program is a coöperative one, then it is essential that the school be located as near as possible to the coöperating establishment.

Many trade and industrial schools in which pupils receive training on production jobs or factory jobs, must also consider accessibility from the standpoint of the convenience of the customer. A girls' trade school, for example, frequently sells its

products, such as hats, wearing apparel, and various kinds of prepared food. Under these conditions, if the school were so located that the customers found it extremely difficult of approach, this activity would be very seriously curtailed, or else the sales activity would have to be located away from the school, either of which would mean inefficient working conditions.

The Uncertainty of the Future Character of Development. — The inability to predict future development, as already pointed out, still further complicates the situation. As already mentioned, the trend of vocational schools at present is in the direction of coöperative programs and service to employed adults, rather than in the direction of non-coöperative preëmployment programs. In view of the present trend, it is safe for an administrator to assume that primary consideration should be given to accessibility to groups which will be served more and more by part-time coöperative programs and by occupational extension courses, such as are carried on in evening and dull-season courses.

TABLE No. 11

Relative Emphasis on Certain Factors Affecting Accessibility

Factors*	Full-time Day Industrial School	Agricultural Department in a High School	Part time Schools in Any Field
Character of neighborhood	6	8	6
Accessibility to: *a.* Industrial district *b.* Residential district	2	0	9
Transportation facilities	9	9	9
Value of ground	7	9	7
Trend of policy growth	6	4	7
Trend of character of district	5	8	7
Area available	9	9	9

* Rated on a basis of 0-10.

Varying Importance of Factors under Different Conditions. — The various factors that have been discussed apply to a greater or less extent in all fields of vocational education. In order to show how certain of these factors might vary under different conditions, the authors have roughly indicated, in Table No. 11, their opinion as to the relative emphasis which should be placed upon each factor, as between the full-time day industrial school, the agricultural department in a high school, and a part-time instruction program in any field.

The reader should understand that the values which are given in this table are merely rough expressions of individual opinions for the purpose of drawing attention to the fact that these factors do vary under different conditions.

"Selling" Selected Sites to the Superior Authority. — "Selling" a site to the superior authority is just like selling anything else. The "salesman" needs to be fairly well equipped with complete information and with reasons for his recommendation. He must be prepared to meet anticipated and unanticipated objections, and to discuss fairly the disadvantages which will always exist to some degree, since no one site can be recommended on a 100 per cent basis with regard to all factors.

The same situation exists here as exists with regard to the appointment of a new member to the staff; the administrator must possess full information and be prepared to furnish it in a clear and convincing manner.

Relative Functions of Architect and Administrator. — With regard to all questions of location, site, and character of buildings, there are certain functions which should be discharged respectively by the architect and by the administrator. A number of these relative functions are summarized in Table No. 12.

Since most of these functions have been covered elsewhere in this chapter, further discussion is only necessary in one or two particular cases. One very distinct and necessary function of the architect is to advise the administrator as to the peculiar conditions of the site with respect to topography, drainage, and the character of the soil, considered in relation to the supporting foundation. All of these factors affect the character of the building, its location on the site, and its ultimate cost.

TABLE No. 12

CERTAIN RELATIVE FUNCTIONS OF ARCHITECT AND ADMINISTRATOR

Function of Architect	Function of Administrator
1. Determines character of construction. 2. Furnishes estimates of cost. 3. Meets administrator's limitations if within structural limitations. 4. Supervises construction. 5. Prepares statistics for bids. 6. Checks progress of work. 7. Checks payment of contractors for materials and labor. 8. Determines degree of competition for payment. 9. Advises as to site.	1. Furnishes information as to: *a*. Space needed. *b*. Lay-out of space: (1) Classrooms. (2) Laboratories. (3) Shops. (4) Special accommodations. 2. Approves preliminary plan. 3. Approves formal plan. 4. Approves current adjustments in plans. 5. Recommends a general type of building. 6. Furnishes expert advice as to adaptability. 7. Determines locality and chooses site.

Procedures to be Followed by the Administrator after the Site has been Secured. — The genesis of a building starts with an idea. For example, the administrator performs the following steps:

(1) gets an idea of the need for a building to serve certain groups;
(2) confers with the members of his staff and others to crystallize his idea;
(3) makes a preliminary decision as to a suitable locality;
(4) secures general approval of projects from the superior authority;
(5) confers with his staff as to
  (*a*) character of program,
  (*b*) capacity,
  (*c*) floor space,
  (*d*) adaptability, and
  (*e*) type of building;
(6) secures authorization for a given site;
(7) confers with architects;

(8) secures preliminary plans and estimates;
(9) secures further approval of projects and necessary assurance that funds will be available;
(10) confers with staff and architect as to final plans;
(11) presents final plans for final approval of superior authority; and
(12) approves current changes during construction.

It should be noted that the administrator takes the initiative up to the point where he presents final plans for the final approval of the superior authority. As soon as the final plans have been approved, the initiative in the enterprise passes into the hands of the superior authority. In such matters as the raising of the necessary funds, advertising for bids, letting contracts, and the purchase of the site, the superior authority acts entirely on its own responsibility, since these are functions which no one else can legally discharge.

When these duties have been performed the architect assumes the initiative, since the project has passed into his field and that of the building constructor. During the period of construction the administrator will frequently be called upon to act in an advisory capacity, both by the architect and by the superior authority. He himself may take the initiative in making suggestions as to current changes during the period of construction, these changes being limited to securing the most efficient service from the building in terms of the activities which the building is being erected to house.

Some Confusions. — Wherever a building is to be constructed, there are a superior authority, an administrator and his staff, an architect, and a builder, as parties in interest. Under any efficient business procedure, each of these parties is recognized as being fully competent to discharge certain functions and quite incompetent to discharge other functions. Unfortunately, in many cases, much confusion has existed in the discharge of these functions. In some cases administrators have imagined that they were architects, and in other cases architects have assumed that they were educational engineers or experts, whereas, in still other cases, the superior authority has assumed both prerogatives.

Wherever an individual or group of individuals, who are competent in one particular field, undertake to discharge functions in fields in which they are not competent, the only result is inefficiency and excess cost. There are plenty of examples, in school buildings all over the country, of the results of such unfortunate confusion of functions.

It is also fair to point out that the procedure outlined in this chapter is by no means that which is usually followed. It is, however, a procedure which, the authors believe, will lead to efficient results, because it does recognize functions in terms of professional abilities. In many cases, for example, the administrator's staff has been given no opportunity to confer with him; and it is only in rare instances that teachers have had an opportunity to confer with the supervisor on the subject of building construction. Cases where the architect and the superior authority have simply gone ahead and constructed a building, absolutely ignoring both the administrator and the educational staff, have been, in the past, altogether too numerous.

The results, in general education, have been unnecessarily high construction costs per pupil, the erection of buildings ill-adapted to the needs of the particular group to be served, the location of certain special facilities in undesirable parts of the building, and the adoption of types of construction that make it impossible to adapt the building to necessary changes in the program. In addition to all of the foregoing illustrations of inefficiency, there are numerous instances where, from the purely architectural standpoint, monstrosities have been erected. In the same way there are many monuments to civic enterprise in which the efficient carrying out of the projected program is strangled in all kinds of ways by impractical educational design and construction.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. There are, in general, two types of agricultural schools: (*a*) the agricultural department in a high school, and (*b*) the separate agricultural school, such as the county agricultural schools in Massachusetts, which provide opportunities for supervised practical work on the school farm. List the relative advantages and disadvantages of the two types.

2. The City of Northampton, Mass., is located in the center of an agri-

cultural district. Agriculture consists largely of the raising of tobacco, small general farming, and a certain amount of orcharding. The population of the city is between 20,000 and 25,000, and Smith College is located in the city, its activities being limited entirely to girls. Under these conditions, would you recommend a separate agricultural school, or an agricultural department in a local high school? Why?

3. If it were desirable to house a home economics program in a building, with either a trade and industrial program or an agricultural program, which combination would you recommend, and why?

4. Agricultural schools, or agricultural departments, are commonly located in small communities forming the business centers of relatively large agricultural areas. Trade and industrial schools are commonly located in industrial communities where the population is concentrated in small areas. In what way would the question of accessibility be affected, with regard to the selection of sites, as between an agricultural school and a trade and industrial school?

5. Make a rough floor plan of a building to accommodate 250 pupils attending school on a part-time basis of four hours per week, so as to meet the following specifications:

(*a*) Fifty per cent of the pupils' time to be given to some form of practical training, and 50 per cent to some kind of related-subject work, the objective of the related work being to increase the civic or vocational intelligence of the pupils. No other educational activities are to be housed in this building. The pupils include both boys and girls. Be prepared to give your reasons for your particular floor plan.

6. Assuming that you are to appear before your superior authority to advocate the preliminary authorization of a building based upon the plan prepared in (5) above: (*a*) What information would you need to possess? (*b*) What information would you need to have prepared on paper to place in the hands of the members of the group representing the superior authority? (*c*) What objections would you anticipate and what preparation would you make to meet these objections, if they came up, in order to combat or to neutralize them?

7. Make a list of reasons why the procedure outlined on page 120 has not been more commonly followed in the past.

8. See if, out of your own experience, or out of the experience of others, you can recall cases where (1) the administrator has failed to follow this procedure, (2) the architect has failed in a similar manner, and (3) the superior authority has failed to confine itself to its proper function. Any or all of the given situations have existed.

9. Assuming that you are a local administrator, responsible for vocational education in a city of 30,000 inhabitants, and that you have the following: (*a*) An agricultural department in a high school; (*b*) evening trade extension classes in mechanical drawing, sheet metal work, and cabinet making. Under these conditions a new building is to be erected with the idea that its capacity

will be sufficient for the next fifteen years' development. What would you recommend in terms of (*a*) fields of vocational education, (*b*) types of organizations, and (*c*) provision for both youths and adults. If you are not familiar with a city of this type, secure whatever information you can about any one of the following, and work out the same problem: (*a*) a textile city in New England, such as Fall River, Lowell, or New Bedford; (*b*) a textile community in the Piedmont section of North or South Carolina; and (*c*) the city of Sacramento, Calif.

10. In carrying out the procedure listed in item (5), on page 120, where the administrator confers with his staff as to floor space, and type of building, should final decisions be based upon a majority rule or should the administrator make the final decision himself? Why?

CHAPTER VII

INTERNAL BUILDING CONSTRUCTION AND THE ADMINISTRATOR

Preliminary. — Any building erected for a definite purpose is the concrete embodiment of an idea. It expresses the ideas of the architect and of the engineer in regard to durable construction, the meeting of recognized professional standards, and the harmony that should exist between the building and its surroundings.

A building constructed to house educational activities also represents the ideas of the educational engineer as to the particular activities to be carried on within it. The architect and engineer visualize their ideas largely in concrete materials, while the educational engineer visualizes his ideas largely in terms of the educational objectives which are to be attained through the activities to be carried on in the building.

Two Kinds of Responsibilities. — While the administrator is ultimately responsible, there are certain responsibilities that he can delegate and other responsibilities that can not be delegated. The more important of these two types of responsibilities are indicated in Table No. 13.

Basis of Differentiation. — The point at which the administrator should properly delegate such responsibilities as are listed in the second column of Table No. 13 is the point at which special technical knowledge is required beyond that which the administrator can be expected to possess. He can not, for example, be expected to possess the technical knowledge of a supervisor, or of a teacher in his own special field, nor can he be expected to possess the special knowledge that is possessed by the architect and the engineer.

In delegating these responsibilities he does not give up his ultimate responsibility, but he proceeds along the line which any good business man would follow in calling in experts, where expert service is needed, and in delegating certain responsibilities to

others who are better equipped than himself to discharge these responsibilities.

TABLE No. 13

RESPONSIBILITIES THAT CAN AND THAT CAN NOT BE DELEGATED

Responsibilities That Can Not Be Delegated	Responsibilities That Can and Should Be Delegated
1. Financial.	1. Working out the details of internal construction from the educational standpoint.
2. Determination of purpose for which building is to be used.	2. Type of tools and equipment.
3. Determination of the degree to which the work in the building is to compete with work of a similar character carried on by other schools or other agencies.	3. Floor lay-outs for installing equipment.
4. Determination of occupational trend.	4. Amount of tools and equipment.
5. Dealing with staff enthusiasm.	5. Working conditions for efficient instruction.
6. Dealing with coöperating agencies.	
7. Setting up administrative policy.	
8. Determination of special educational experts to be consulted.	

Consideration of Recommendations. — Recommendations made by experts must be given careful consideration by administrators. According to their attitude toward such recommendations, administrators may be divided into two classes. The first type respects the technical expert, and accepts his recommendations in so far as they do not involve responsibility which the administrator must directly discharge himself. For example, a supervisor may recommend a lay-out for a shop plan of a character which, however desirable it may be, is prohibitive from the standpoint of cost limitations. In this situation, it is necessary for the administrator to assume full responsibility for making necessary changes. On the other hand, it would be foolish for him to get into any serious discussion with a competent supervisor of home economics as to the exact location of cooking stoves, kitchen cabinets, laundry equipment, and sinks in a home economics department.

The second type of administrator feels called upon to show that he possesses more technical information than does the technical

expert. This situation usually leads to inefficient results, on the general principle that an amateur should not undertake to compete with a professional.

Recommendations and Personnel Factors. — One situation which the administrator must face is the evaluation of recommendations in terms of the professional equipment and personal characteristics of those making the recommendation. Theoretically, all supervisors are competent, and are capable of making recommendations on a purely professional basis. In practice, they vary in their degree of competency and in their individual characteristics. The same statement will hold true for teachers, architects, and all other professional experts.

To the extent that undue emphasis of some kind affects the judgment of a technician, or his characteristics make him over- or under-enthusiastic, a situation arises which the administrator must take into consideration in making up his own recommendation. The problem of the administrator under these circumstances is to get the maximum of service, to check over-enthusiasm, and at the same time retain the full coöperation of the technical expert, whoever he may be. This is simply a problem in personnel management.

Special Technical Service. — In some cases the administrator may find it desirable to bring in from the outside educational experts from some particular field, as, for example, where a local director of vocational education called in members of the staff of the State board for vocational education for consultation and advice on certain problems. The outside expert, who is unacquainted with the local situation and personnel, is at a very distinct disadvantage as compared with the expert who has already worked with members of the staff and who is familiar with the local conditions in the community.

Securing Efficient Technical Service. — As already stated, the administrator is not a technical expert, either in the field of vocational education or in the field of building construction. It is not a reflection on his ability as an administrator to admit this fact. As an efficient administrator he should take advantage of all available technical resources and should give credit where credit is due. This is good administration and good leadership.

Dealing with the Architect. — In utilizing technical resources an administrator needs to deal to a considerable extent with the architect. The architectural field is perhaps the farthest removed from that of education; and the internal construction of schools for vocational educational purposes is not yet standardized to any such extent as is the internal construction of general school buildings. For these reasons the administrator will find it necessary to give considerable assistance to the architect, and to offer more suggestions than are necessary when a standard elementary or high school building is to be erected. The architect is largely creating a building around activities about which he knows very little. Presumably, he is equipped with standards which guide him when he deals with the problems of providing for ordinary educational work but which, in many cases, do not apply in buildings erected for vocational work. This places two responsibilities upon the administrator. The first is that of checking up on the architect, and the second that of assisting him with suggestions as to modifications of standard practices which will be necessary if the building is to serve its purpose efficiently.

Lighting. — Lighting may be natural or artificial as to its source, and general or special as to its use. For general illumination, both natural and artificial, there are recognized lighting standards with which all competent architects are familiar. However, where the school work is to be carried on with the aid of tools and equipment, certain special lighting facilities may be necessary. This will be true, either of natural or of artificial illumination, in the case of sewing and cooking rooms for home economics courses, and of shop courses in trade and industrial education. Such recognized standards as exist under these conditions apply to factory construction and lay-outs rather than to regular school buildings.

In many cases, a sky-light is highly desirable in a shop for the purpose of natural illumination, and special circuits are necessary for artificially lighting individual stations, either in home economics laboratories or in trade and industrial shops. It is very generally recognized by experts in these fields that such special lighting provisions must be made, and an administrator should

be able to secure full detailed information from his technical staff. It becomes his responsibility to see that these special lighting conditions are provided by the architect and engineer.

Heating and Ventilation. — Ordinarily, heating offers no special problems in the vocational school that vary in any essential degree from the heating problems in the general school. Owing to the large amount of cubic space per pupil, the modern tendency on the part of architects is to omit special ventilating devices, experience having shown that ordinary ventilation through windows and open sky-lights is adequate for vocational schools under these special conditions. It is sometimes necessary to see that special exhaust systems are installed. This is especially true in the case of certain shops, such as woodworking shops, where a considerable amount of woodworking machinery is installed; in the case of certain abrasive operations, as on grinding machines; and where it becomes necessary to remove obnoxious gases, as in a laboratory or a foundry.

Floor Construction. — With the exception of laboratories and shops, there is a very general uniformity in constructional materials used for floors in regular school buildings. For example, in an ordinary high school building, all classroom and corridor floors, which constitute a considerable percentage of the total floor area, would be constructed of some one particular material or combination of materials. In a vocational school, however, there is a much wider range of requirements, owing to the greater diversity of educational activities being carried on, and the greater variety of conditions which must be met. To the degree which an ordinary school building partakes of the nature of a vocational school building, as is the case in the junior high schools, the same situation exists.

Many of these special activities are not well understood by the architect, and the administrator may find it necessary to furnish information as to the purpose for which the floor is to be used. The architect, in turn, with his special knowledge of materials available, does his best to meet these specifications under cost limitations. In other words, the administrator may find it necessary to inform the architect as to the purpose for which the floor will be used and the particular service required. The architect,

on the other hand, with his technical knowledge, can then specify the particular type of floor possessing the qualities that will most nearly meet these conditions.

Common Floor Characteristics. — The ordinary characteristics which may be desired in floors in different parts of a vocational school are as follows:

1. Durability.
2. Resistance to water.
3. Possibility of keeping floor sanitary.
4. Flexibility with regard to lay-out of equipment.
5. Mobility.
6. Resistance to fire.
7. Resistance to chemical action.
8. Pleasing appearance.
9. Comfort of workers.
10. Relative cost.

Evidently, in any particular case, certain characteristics will be predominant from the standpoint of the purpose for which the floor is to be used. For example, the floor of a machine shop should make possible the easy installation of machine tools and their subsequent rearrangement. This specification can be more fully met if the floor is of concrete than if it is of wood. In the principal's office, however, the predominating factor might be appearance, followed by durability and relative cost. In other words, the administrator would be confronted with the problem of evaluating factors against each other, with regard to certain conditions which must be met.

Floor Materials. — There are a number of materials which are in common use for providing a floor surface. These materials may be used either alone or in certain combinations. Concrete is an example of a material used alone, and tile laid on concrete is an example of a combination of materials. The more common of these floor materials are as follows:

1. Concrete.
2. Wood.
3. Wood blocks (usually treated).

4. Tile.
5. Brick.
6. Various compositions.
7. Linoleum.
8. Earth.

Each of these materials or combinations of materials gives a floor surface which possesses the characteristics given in the foregoing paragraph to a varying degree. For example, concrete gives a more nearly water-proof surface than does wood, and earth can be more readily excavated than can concrete or tile.

The Elements of the Problem. — There are three major variables which enter into the problem of selecting floor materials: first, the character of the work to be done; second, the characteristics of the floor surface, which will enable the work to be done under desirable conditions; and third, materials available in the market, or under limiting cost conditions. These three variables must somehow be evaluated by the architect and the administrator working together. For example, let us assume that the problem is to secure a suitable floor for a farm shop in a course in vocational agriculture. The character of the work to be done requires the use of sharp hand tools, small bench equipment, and benches and tables that can be readily moved about. These conditions call, essentially, for durability, comfort, special protection to sharp tools, and moderate cost. Obviously, all of these conditions will be met by a wooden floor. If it is also proposed to provide additional shop floor space for work in automotive repair, such as work on farm tractors, or for work on farm machinery, the question of cleanliness becomes important, and durability is involved, together with medium cost, all of which may be met by an earth or a concrete floor.

In case provision must be made for practical training in the plumbing trade, all or a portion of the floor must be so arranged that it can be excavated, in order that instruction in ground work may be given. This would naturally mean that the floor should be composed of earth. The general specifications, therefore, might be, for that particular section of the plumbing shop, durability, flexibility for equipment, mobility, fire resistance, and

moderate cost, all of which will be met by using earth as the floor material.

In the case of a cabinet shop, using woodworking machinery of various kinds, as well as bench and hand tools, the predominant characteristics might be (1) durability, (2) ease in cleaning and sanitation, (3) ease in shifting equipment or flexibility, (4) comfort, (5) special protection to sharp tools, and (6) medium cost. These conditions would be approximately met by installing a wooden floor, but would not be met if the floor were constructed of concrete, brick, or tile. In case absolutely fireproof construction is required, a concrete base, with some kind of covering corresponding to the characteristics of wood, would meet the conditions.

Cost has been included in the list of characteristics because, while cost is predominantly a characteristic factor of any construction, certain conditions may arise where the ultimate cost must be subordinated to other factors. The necessity of taking cost into consideration is illustrated in situations where absolutely fireproof construction is required, or where city ordinances must be complied with in certain phases of construction.

Allocation of Floor Space. — The situation with regard to the allocation of floor space in a vocational school is totally different from that which exists in general school construction. Therefore, few of the ordinary standards developed for general school buildings can be used in the case of vocational schools. For example, the standard allowance of floor space per pupil in high school construction is approximately 15 square feet, while, in vocational school shops, the area to be provided per pupil will vary all the way from 100 to 300 square feet, according to the character of the shop work. This means that the administrator will need to give considerable assistance to the architect in the laying out of floor space for classrooms, shops, and laboratories. Experience on the part of architects in designing and constructing vocational schools has been very limited, particularly when one bears in mind that technical and manual training high schools, junior high schools, cosmopolitan high schools, and other similar institutions should not be considered as vocational in their character, and, therefore, the buildings were not erected to meet the requirements of a modern vocational program.

With the development of the program in vocational education, there has come about a greater and greater recognition of the necessity for considering problems concerning the allocation of floor space on a totally different basis from that prevailing heretofore in connection with the general school. Whether wisely or unwisely, there is in the general school, with few exceptions, a highly standardized unit organization with a corresponding allocation of floor space. The standard school room is the standard unit. When programs of vocational education are considered, the problem becomes complicated by the introduction of a multitude of factors which do not enter into the planning of the general school.

Floor Space for Different Types of Organizations. — Reverting to Richards' formula, where $E = M + T + I$, there are in vocational education two fundamentally different type organizations. The *first* type is organized so as to give M, T, and I under the school roof, as in the case of a trade school that operates shops and gives technical and related instruction.

The *second* type is organized under a program which proposes to give only T and I under the school roof, while relying upon a program projected into the occupation to give the M value. This is illustrated by the agricultural department in a high school having supervised home practice work. This same type is also illustrated by the projection of a home economics program into the home, and by the ordinary trade extension course in an evening school.

Evidently this distinction in the fundamental types of organization very profoundly affects the whole question of the allocation of floor space. The situation is further complicated when provision must be made for combinations of the foregoing type organizations, as in the case of a day trade school that also conducts evening trade extension work, or a home economics department in the high school where provision also is to be made for handling classes of adult women on an extension basis.

Information Required. — Problems involving floor space must primarily take into consideration the fundamental type or types of organization and the proposed student capacity. In addition, where the first type of organization is to be accommodated, shop

training in various occupations will call for different amounts of floor space. Under these conditions the character of the equipment is the determining factor. It is obvious, for example, that the equipment and auxiliary conveniences for a class in printing would require more floor space than would a class of the same size in paper hanging, where most of the practice work is done in houses or on the walls of the shop rather than on equipment requiring floor space. In the same way, it would probably require more floor space to give pseudo job training in bricklaying than it would to give the same kind of training in advanced extension work in painting, where most of the practice could be carried out on small panels. Again, there are certain occupations, such as cabinet making or machine shop work, where under actual occupational conditions most of the work is done in a shop; while in the case of other occupations, such as the various building trades, the actual occupation is for the most part carried on outside of the shop. It is obvious that all of these factors should be taken into consideration in allocating floor space to training in these various occupations.

All this amounts to saying that the fundamental question is one of shop or no shop. As long as it is proposed to give instruction only in technical or related-subject content, although this content is entirely different for the various occupations, the floor-space requirements are essentially those of any school, with the exception that classes will always be much smaller. Where space must be allotted to shop work, however, the difficult side of the problem is encountered.

Characteristics of a Good Lay-out of Floor Space. — The characteristics of a good lay-out of floor-space may be stated as follows:

1. It provides adequate floor facilities for carrying on instructional work for the special type of organization contemplated.
2. It conforms to necessary structural limitations.
3. It provides for the grouping of related activities.
4. It provides for expansion in both the number of students and in the types of organizations.

The necessity for the first characteristic is obvious, although unfortunately it is frequently disregarded. The possibility of overcrowding in the general educational school, which it has frequently been necessary to exploit to the utmost, has naturally had a tendency to carry over into the vocational field. If a high school building that was built to accommodate 1000 pupils can be made to accommodate 1500, many administrators and school boards naturally fail to see why the same compressing process can not also be applied to a vocational school. The answer is that it is possible to compress students, but it is not possible to compress equipment; and that it is only possible to compress students where they are handled in masses, where they are supposed to stay in one place for most of the time, and where it is not expected that instruction will ever be given on an individual or small group basis.

Certain structural limitations also bear upon the problem. For example, the cost of carrying a floor for a span of 60 feet without supporting columns is very high as compared with the cost of the ordinary span of approximately 30 feet. Many administrators fail to see why, since it is possible to construct an auditorium without columns, it is not also possible and feasible to construct a shop in the same manner.

Rooms used for related activities, such as a room used for giving instruction in charging, testing, and repairing storage batteries, and a shop for teaching automotive repair work, on a garage service basis, should be adjacent to each other, rather than in isolated or different parts of the same building. This same statement would be equally true with regard to rooms for food preparation and a dining room for service in home economics.

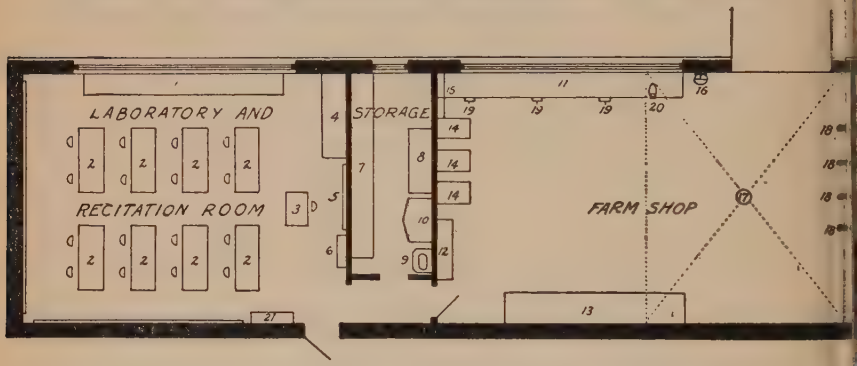
In general, it can be assumed that no vocational program is static. It can also be assumed that it will either change in type of organization or in the number of students, or in both. For example, the recent development in apprenticeship training has brought an entirely new type of organization into the vocational program. The trend toward part-time work is another illustration of future possibilities in new developments. In general, there are three situations which should be considered. The first is represented by a floor space laid out with regard to a static

program, as illustrated by the plan in Diagram No. 5, showing the floor allotment to an agricultural department in a high school.

The floor lay-out in the plan provides for only one type of organization, in which the school activities consist of technical instruction and instruction in farm mechanics. It may be noted

DIAGRAM No. 5

FLOOR PLAN OF AN AGRICULTURAL DEPARTMENT IN A HIGH SCHOOL



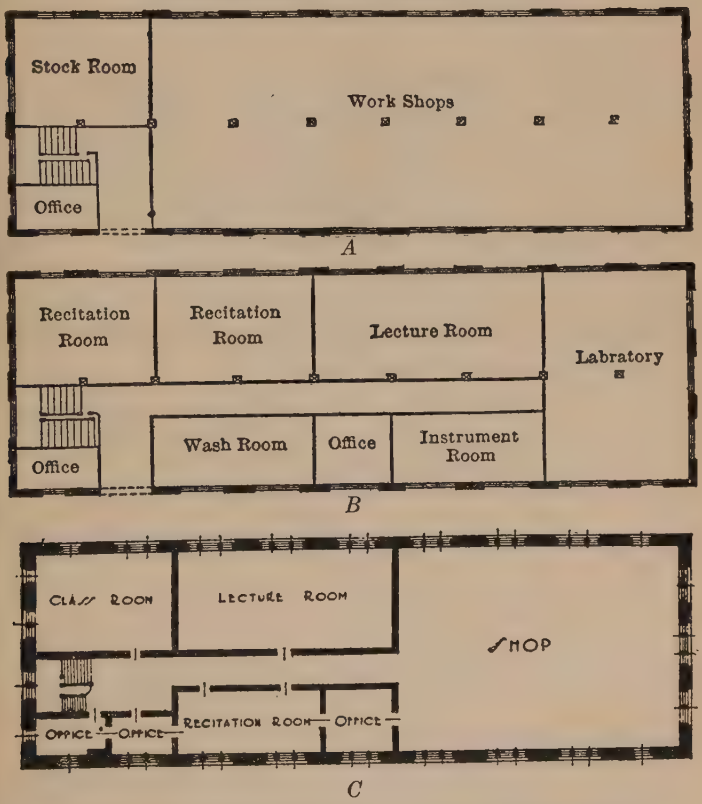
1. Shelf 18 feet by 22 inches, with acid-proof trough leading to drain.
2. Table 72 by 28 inches.
3. Teacher's desk 36 by 23 inches.
4. Display cabinet 7 feet 10½ inches by 2 inches by 7½ feet for grains and glass ware — upper section 12 inches deep lower section 24 inches deep.
5. Slated cloth blackboard on spring roller 4 by 6 feet.
6. Book and bulletin case, 36 by 8 inches by 6 feet 10 inches.
7. Supply case and shelf 17 feet by 2 feet, with corn trays and soil bins, etc.
8. Closet for cement tools 72 by 24 inches.
9. Lavatory 28 by 21½ inches.
10. Clothes closet 48 by 24 inches.
11. Bench 22 feet by 28 inches.
12. Tool cabinet 5 feet 6¾ inches by 17⅛ inches by 6 feet.
13. Lumber rack 16 by 3 by 6½ feet.
14. Gas engines 3 by 2 feet.
15. Harness cabinet 4 feet by 8 inches by 3 feet.
16. Post drill.
17. Drain.
18. Tie rings.
19. Wood vise.
20. Machinist vise.
21. Periodical rack 48 by 12 inches by 6 feet 10 inches.

that this arrangement permits of an expansion in the number of students, since the time allotment for any one group is usually ninety minutes per day. Several groups of pupils could thus be instructed, using the same floor space, but at different periods during the day. Under this arrangement it is impossible to provide training within the building in agricultural activities; but, as agricultural activities can not be carried on under a school roof, the plan presents a satisfactory lay-out for that particular type of organization.

The second typical situation is the one in which the floor space is broken up into standard units, but where no attempt is made to allocate space within the unit. A floor plan illustrating this procedure is illustrated in Diagram No. 6. It may be noted that the same unit of floor space is utilized in plan *A* for work shops,

DIAGRAM No. 6

A Standard Unit Floor Plan *



Plan *A* — Standard Unit Divided for Instruction in Shop Work.
Plan *B* — Standard Unit Divided for Recitation Rooms.
Plan *C* — Standard Unit Arranged for Special Combination of Shops and Recitation Rooms.

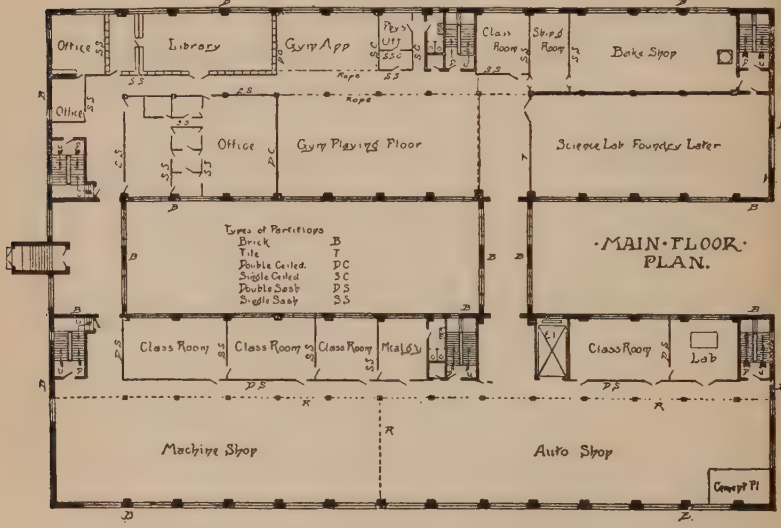
* Federal Board for Vocational Education Bulletin No. 20.

in plan *B* for technical instruction, and in plan *C* for both shop and technical instruction. It should be noted further that the internal partitions are all temporary and removable, so that a unit of any one type can readily be converted into a unit of another type, thus providing perfect elasticity within the unit.

A third typical situation exists where floor space only is to be provided. This situation is illustrated in the accompanying plan of the main floor of the shop building of Dunwoody Institute, as shown in Diagram No. 7.

DIAGRAM No. 7

MAIN SHOP FLOOR PLAN OF THE WILLIAM HOOD DUNWOODY INDUSTRIAL INSTITUTE, MINNEAPOLIS, MINN.*



This arrangement provides floor space unrestricted in any way, except for central supporting columns. The plan as given shows the internal arrangement as of some six or seven years ago. During this interim various internal changes and rearrangements of equipment have been made in the allocation of floor space for different activities; and the recent erection of an administrative

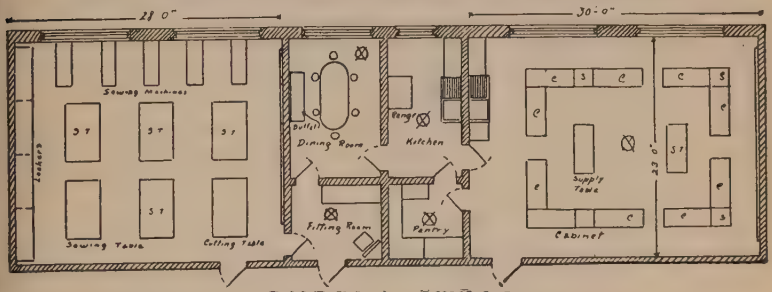
* Federal Board for Vocational Education Bulletin No. 20.

building has made possible the removal of the office and gymnasium floor space from the shop floor plan. The partitions are easily moved; in fact, some of them, as may be noted on the plan, consist only of ropes stretched from column to column.

Allocation of floor space and arrangement of equipment in home economics laboratories in the past has been very largely based upon the use of the hollow square, or upon the "U" plan.

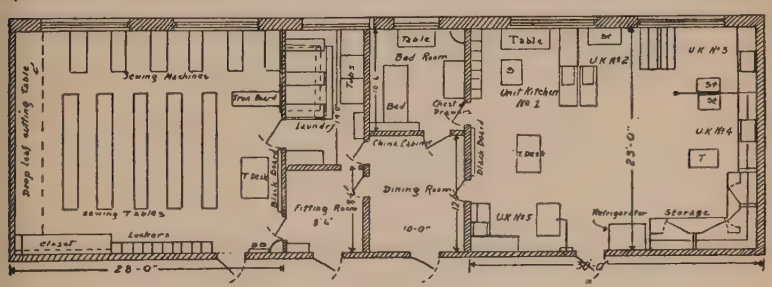
DIAGRAM No. 8

OLD AND NEW SPACE ALLOCATION FOR HOME ECONOMICS *



PLAN No 1 VIEW A.

COMMON TYPE OF HOME ECONOMICS EQUIPMENT.



PLAN No 1 VIEW C.

RE-ARRANGEMENT OF VIEW A SHOWING UNIT KITCHENS, BETTER PLAN FOR SEWING EQUIPMENT AND THE ADDITION OF A LAUNDRY AND A BED ROOM.

The recent development of the practice apartment and the introduction of the unit kitchen have very materially modified this arrangement. Diagram No. 8 illustrates the contrast between the old and the new allocation of floor space in home economics.

* Misc. 325, Federal Board for Vocational Education.

Further illustrations of this same change in practice in home economics will be found in Diagrams Nos. 9, 10, and 11, as shown on pages 149, 150 and 151.

General Specifications. — In the case of home economics and agricultural education, the programs are fairly well standardized, and consequently space allocations are fairly constant. In trade and industrial education, however, different courses of training, with all of the variations in equipment and other space requirements, call for different space allocations for almost every occupation for which training is given. Typical general specifications for certain occupations are given in Table No. 14.

The general specifications given in Table No. 14 are based upon an instruction group of approximately fifteen pupils and the provision of regular standard equipment. The specifications given represent the best consensus of opinion that can be secured at the present time.

Supplementary Facilities. — Where the building has its own power plant, it is desirable to utilize this equipment for vocational instruction. Where this procedure is proposed, the administrator should inform the architect and engineer, in order that the equipment may be so installed that it can be used with safety and convenience for this purpose. Considerations of this kind may also affect the character of the power unit installed. For example, a certain school has, in its own power plant, one steam engine, one high-speed direct-connected unit, one gas converter engine, and one Diesel engine, thus increasing the instructional value of the plant to a marked degree over the value of a standard power plant.

Lunch Rooms. — It is customary in planning modern school buildings to provide lunch rooms. There is very little difference between the lunch room in a vocational school building and that in any other school building; and the standards are the same, except that in a vocational school such facilities should be provided as may be required to give students training in institutional management, if such a course is included in the school program. While the standards for the lunch room are the same as for lunch rooms in general school buildings, the use of the lunch room in a vocational school is likely to be entirely different. For example,

TABLE No. 14

GENERAL SPECIFICATIONS

Room	Floor Area (Square Feet)	Ceiling Height in Feet	Minimum Ratio Glass Surface to Floor Area	Kind of Floor	One Electric Light Outlet per 100 Square Feet Floor Area (Wattage)	Average Temperature in 0° Weather
						Degrees
Machine shop	1,800–4,000	12–14	1 : 4	Wood	125	60–65
Carpentry	1,800–4,000	18–32	1 : 4	Wood	100	60–65
Masonry	1,800–3,000	13	1 : 4	Cement	100	60–65
Sheet metal	1,800–3,000	13	1 : 4	Wood or cement	100	60–65
Plumbing	1,500–3,000	18–32	1 : 4	Cement	100	60–65
Shop electricity	1,500–3,000	18–32	1 : 4	Wood	100	65–70
Auto mechanics	1,500–3,000	13	1 : 4	Cement	125	60–65
House painting	1,500–3,000	13	1 : 4	Wood or cement	125	65–70
Related science	1,000–1,800	13	1 : 4	Wood	125	70
Mathematics	500– 700	13	1 : 5	Wood	80	70
Related drawing	700– 900	13	1 : 4	Wood	125	70
Non-vocational subjects	500– 700	13	1 : 5	Wood	80	70

in William Hood Dunwoody Institute the lunch room is in operation practically from 7 in the morning until 11 or 12 o'clock at night. During this period it meets the needs of all kinds of students coming and going from work to school and from school to work.

Elevators. — A vocational school carrying on shop work on a productive basis, using standard equipment, often has occasion to move heavy material from one floor to another, and the administrator should see that elevators of adequate power and size are provided for this purpose when the building is being planned. This is a detail which an architect may overlook. It is also very important to give attention to the location of the elevator, in order that it may be accessible on all floors, including the basement.

Special Facilities. — Such special facilities as wash rooms and toilets should be provided on a commercial rather than on a school basis. In a trade and industrial school it is advantageous to have these facilities adjacent to the shops.

Need for Storage and Tool Rooms. — Wherever shop work is carried on, storage space and tool rooms need to be provided in the same way as in a commercial shop. In general, vocational education requires a considerable use of charts, models, and demonstration material of all kinds, which makes it necessary to provide more storage space than is ordinarily found in a general school. It is sometimes forgotten that vocational students work with things and academic students work with books. Because of this difference, the provision of a bookcase large enough to contain a few standard reference books, which is sufficient for a general school room, or the corresponding provision in an ordinary high school laboratory for the storage of demonstration apparatus, is decidedly insufficient for vocational shops, laboratories, or classrooms.

There is probably no other phase of planning which has caused more trouble than the failure on the part of architects to provide adequate storage space for tools, materials, and demonstration apparatus. This failure has resulted not only in the impossibility of having adequate materials on hand for instructional purposes, but also in an excessive amount of damage to apparatus and loss of materials. It is estimated that from 10 to 15 per

cent of the total floor space devoted to shops and laboratories should be allowed for the proper storage and protection of materials.

Need for Flexibility. — Throughout the discussion in this chapter, attention has been called to the need for flexibility in construction. It is now very generally agreed that the best type of construction provides no interior fixed partitions. This statement has been illustrated in several of the plans given on preceding pages. The more rigid the original space allocations are made, by structural conditions, the less likely the building will be to render maximum service, during the time that it can reasonably be expected to remain in use.

Special Service Outlets. — Efficient instruction in vocational education requires that there be available special services, such as gas, water, electricity, and compressed air. The particular places where these services will be utilized can not be exactly specified in advance, since we have to consider possible modifications in courses, equipment, and the character of the student body. Consequently, it is very important that adequate provision be made for a large number of service outlets, and care should be taken to see that these outlets are provided in the original plan, since it is a great deal cheaper to get these conveniences installed when the building is under construction than it is to secure them after the building has been erected. The foregoing statement is especially true under modern construction conditions, where concrete and steel are freely used in permanent construction.

Trends in Building Construction. — In closing this chapter, it may be well to draw attention to the general trend in the construction of school buildings, and especially of vocational school buildings, toward the adoption of commercial or factory types of structures. As an example of this statement, there is now under construction, for the University of Pittsburgh, a building of office type, more than fifty stories in height, in which will be located all the major activities of the university. This same general tendency has shown itself in a number of buildings recently constructed, both for general and for vocational education. In view of this trend in building construction, it will be well for the administrator to be on his guard against the attempts of architects

to insist upon older types of construction, with which they may be more familiar.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Make what you would consider to be a satisfactory floor lay-out for a class of fifteen boys for shop instruction in any occupation which you may select, the instruction to be based upon productive work or factory jobs.

2. Make a corresponding floor plan for a class of fifteen girls in food preparation or garment construction.

3. A school is to be constructed to accommodate 250 boys on a full *M*, *T*, and *I* program in machine shop work, sheet metal work, and printing. In addition this school is to accommodate 350 evening trade extension students. What should be the proportion of shop space to classroom space?

4. Make a floor lay-out for the above building.

5. Make a floor lay-out for a shop, indicating all necessary facilities, such as store rooms, tool rooms, wash rooms, and instructor's office, for carrying on instruction in any specific occupation in the field of trade and industrial education.

6. In what ways could the lay-out for an agricultural department in a high school, as shown in Diagram No. 5, on page 136, be improved in your opinion?

7. What improvement would you suggest in the plan given in Diagram No. 9, on page 149, showing a cottage for teaching home economics?

8. To what extent and to what degree should an administrator accept recommendations of members of his staff with regard to the internal construction of a building?

9. Discuss the relative advantages and disadvantages of the unit floor lay-out as shown in Diagram No. 6, page 137, as compared with the scheme shown in Diagram No. 7, page 138.

10. To what degree is the administrator responsible for the actual quality of construction?

11. A certain school building was constructed and, after the construction was completed, it was found that no provision had been made for the storing and protection of tools and demonstration equipment. Who is responsible?

12. Some time subsequent to the completion of the building, it was desired to establish an evening course in automotive mechanics. In order to get an automobile chassis into the building the entire car had to be disassembled on the outside, carried in, and reassembled in the shop. Who is to blame, the administrator, the architect, the supervisor, or the instructor? Why?

13. What kind of coöperative staff work will be called for in connection with the allocation of floor space and equipment lay-outs?

CHAPTER VIII

PROVIDING EQUIPMENT AND SUPPLIES

Preliminary. — Equipment and supplies constitute the immediate working tools of the instructor. He may be able to do a fair job with unsatisfactory building conditions; but if his equipment is inadequate or unsuitable, or his tools are insufficient, or are not those commonly used in the occupation he is teaching, he will be unable to render a satisfactory service. The facility with which functioning tools and equipment can be secured at all times is a factor which counts much more in this case than do the working surroundings as discussed in the previous chapter.

Parties in Interest. — The parties in interest and their relative responsibilities may be observed more clearly in connection with equipment and tools than elsewhere. It must be remembered that in vocational education tools and equipment are in reality the textbook by which the learner is assisted in securing a mastery of a particular occupation.

The parties in interest, speaking functionally, are (1) the instructor, because he uses the equipment; (2) the supervisor, because he is responsible for the efficiency of the program and for its improvement; (3) the administrator, because he is responsible to the superior authority for providing efficient working conditions; and (4) the superior authority which is responsible to society for the setting up of a school that will render the particular social service for which society has furnished the money. The school itself is, in fact, a creature of these four functional groups of responsibilities.

In providing tools and equipment, the instructor, the supervisor, the administrator, and the superior authority constitute a working team; and this team will be efficient only when responsibilities are assigned in accordance with ability to discharge them efficiently. The instructor is the only occupationally competent member of this team. He alone of this group possesses the spe-

cific occupational knowledge which goes with his particular trade or occupation. The supervisor is, in function, an educational engineer. He alone of the group possesses the educational technical knowledge which goes with the business of securing and promoting effective vocational education. The administrator is finally responsible to the superior authority for providing the necessary conditions for the efficient carrying out of the particular educational enterprise under way, and he alone possesses that special knowledge which functions in the discharge of this particular responsibility. The superior authority has no technical knowledge related to the problem, but has ultimate financial and social responsibility for the entire program. This group, therefore, constitutes a team composed of four individuals or groups. Three of these possess distinct kinds of technical knowledge and ability while the fourth member of the team is essentially a "lay member," from the standpoint of specific technical information and ability, but, at the same time, is charged with the entire responsibility for the efficient rendering of the specific social service intended.

If there is a proper recognition of relative functions, various steps in the securing and care of equipment originate with different members of the team. The point of origin of a number of the more important of these functions is indicated in Table No. 15.

In the foregoing table, the (×) indicates the point of origin, and the arrows that pass through the columns representing other functions indicate that each of those functions in turn has some responsibility based upon the particular technical knowledge possessed by the individual or agency discharging that particular function. Thus, for example, the allocation of floor space should originate with the instructor, should be checked by the supervisor from the standpoint of its use for educational purposes, should be secured or provided by the administrator, and should be authorized and paid for by the superior authority, the result being a school with a proper allocation of floor space for that particular purpose. In the same way, the function of securing bids for equipment is discharged entirely by the superior authority, since that authority only is functionally responsible by law for the expenditure of money.

TABLE No. 15

FUNCTIONAL RESPONSIBILITIES AND PARTIES IN INTEREST WITH REGARD TO EQUIPMENT

Functions	Technical Occupational Knowledge	Effective Vocational Education	Seeing that Adequate Equipment is Provided	Financial and Social Objectives	Doing the Job
	Instructor	Supervisor	Administrator	Superior Authority	The School
1. Allocation of floor space	×				→
2. Adequate equipment	×				→
3. Size of instructing groups		×			→
4. Specifications for floor surfaces	×				→
5. Special illumination	×				→
6. Preparing specifications of shop equipment	×				→
7. Securing bids				×	→
8. Checking bids against specifications	×				→
9. Buying equipment				×	→
10. Receiving and checking	×				→
11. Supervising installation	×				→
12. Repairs and replacements	×				→
13. Care and protection	×				→
14. Safety appliances	×				→

Good and Poor Administration. — The situation presented in Table No. 15 is based upon the assumption of the possession of all functioning special technical equipment by the various members of the team. In proportion as the actual conditions depart from those indicated in the table, inefficiency will result. For

example, an administrator should not assume that he possesses adequate technical knowledge to enable him to pass upon the relative advantages of two different types of shapers for a machine shop, the capacity and dimensions of a planer, the variety of fonts of types which should be provided in a print shop, or the type of stove for use in a unit kitchen. If the administrator is competent to pass upon these questions, he is, in terms of function, taking the place of the instructor; and, in the field of vocational education, the administrator who is capable of taking the place of the instructor, in all the wide range of occupations with which a vocational program is concerned, is yet to be created or discovered.

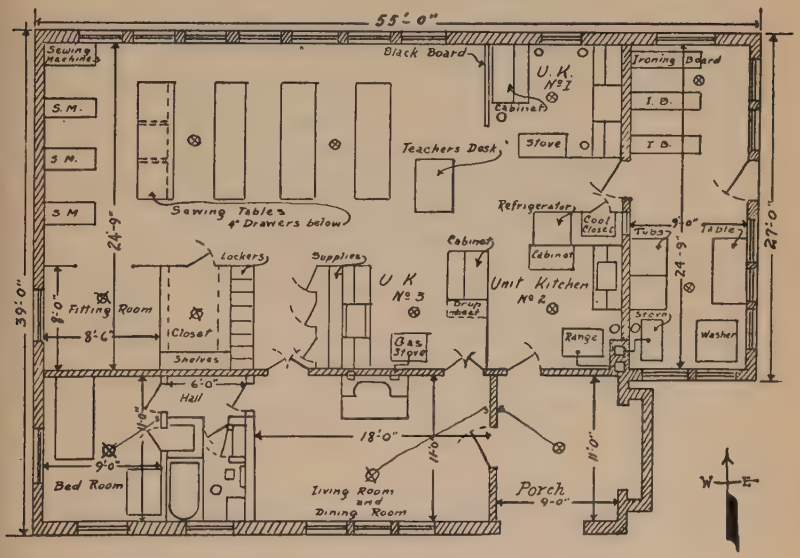
Unfortunately, a good many administrators feel that it is necessary to bluff and to " look wise " with regard to such purely technical matters. They feel that the dignity of their position requires the appearance of the ability to assume this responsibility. What they actually do is make themselves ridiculous in the eyes of occupationally competent people, just as occupationally competent people make themselves ridiculous if they undertake to pass upon administrative questions.

Technical Ability and the Staff. — It not infrequently happens that an administrator is forced to deal with questions of equipment, especially in the initiation of a program of vocational education. He may not have the necessary technical information and ability represented in the personnel of his staff; in fact, so far as the vocational program goes he may not yet have secured any staff. Under these conditions, he is confronted with the problem of undertaking to discharge functions which he is unable to discharge or of securing this technical service from outside sources. The latter is the course that should be taken. Inexperienced or young administrators sometimes hesitate to recommend such a procedure to their superior authorities, because they seem to feel that it will be a reflection upon their own ability to perform their duties. As a matter of fact, the administrator who frankly says to the superior authority, " I need some special technical assistance " is placing himself in the best position in the eyes of any group of business men who themselves are in the habit of calling in technical experts, and who recognize the value of expert technical service.

Need for Technical Knowledge. — Some idea of the amount of technical knowledge which administrators are *not* expected to possess, is given by Diagrams No. 9 and No. 10, showing the equipment lay-out of a cottage for teaching home economics and of a vocational home economics department in a metropolitan high school.

DIAGRAM No. 9

COTTAGE FOR TEACHING HOME ECONOMICS



PLAN No. III

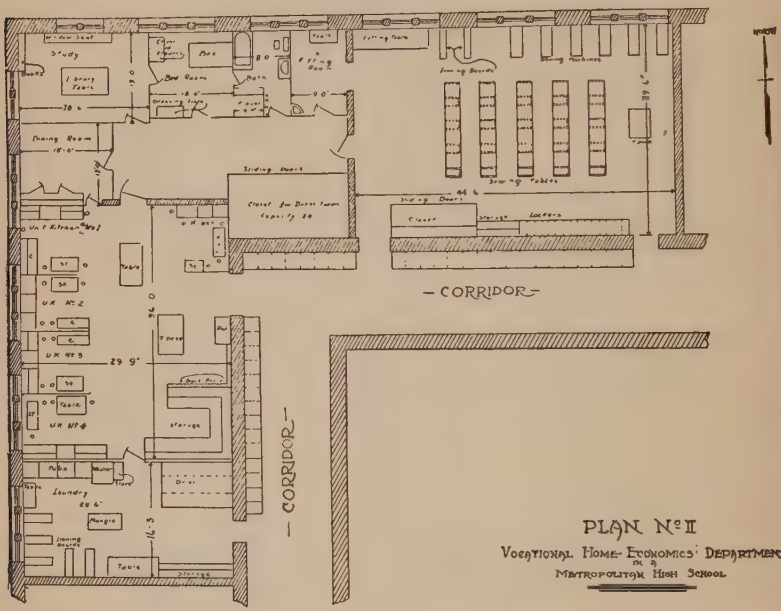
COTTAGE FOR TEACHING HOME ECONOMICS.

Functional and Pay Roll Jobs. — Table No. 15, as stated, is a functional table. According to the special field and the size of the organization, functions may overlap or be combined in pay roll jobs. This is particularly true as between the supervisor and the instructor in agriculture and vocational home economics education. In both of these cases a straight-line program exists. Disregarding the courses in home economics, both of these types of vocational education are commonly taught according to a

standard program with only minor variations to meet local conditions. Under these standards, the supervisor becomes practically an instructor, as far as possession of technical knowledge goes, and should be able to discharge most of the functions of an

DIAGRAM No. 10

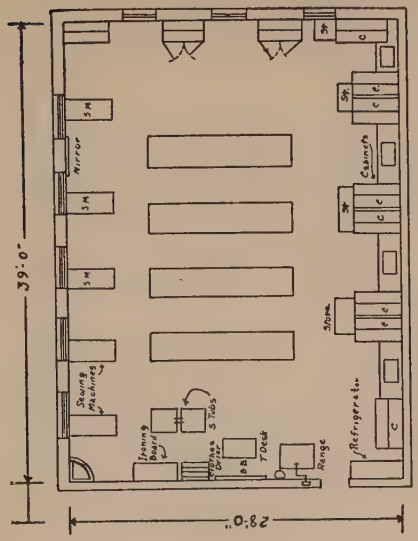
VOCATIONAL HOME ECONOMICS DEPARTMENT IN A METROPOLITAN HIGH SCHOOL



instructor as indicated in Table No. 15. In commercial education, with its need of training for a multitude of different office and distributive jobs, and in trade and industrial education, with its corresponding wide variety of training objectives — that is, wherever the training is for wage-earning occupations — the different kinds of technical knowledge are of such a wide variety and the content is so great that no supervisor, however competent in his special field of service, can be expected to possess it. Such occupational technical knowledge of all types must be secured from occupationally competent instructors or from occupationally competent contact groups.

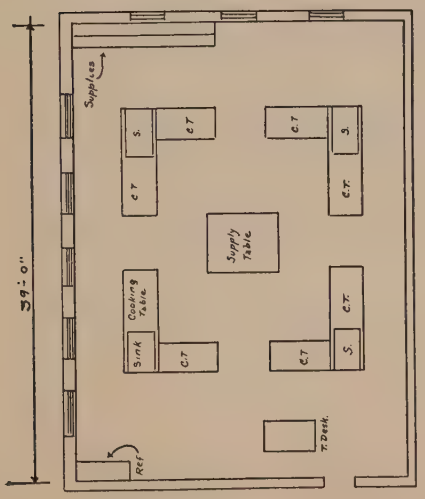
DIAGRAM No. 11

CHANGE AND REARRANGEMENT OF EQUIPMENT



PLAN No V.

Same space rearranged to provide for same number students in cooking, sewing, laundry.



Equipment arranged in typical hollow square providing accom. for 16 students in cooking.

Little more can be expected of a supervisor, in these two fields at least, than the possession of a general knowledge and appreciation of occupational working conditions, supplemented by doing ability in a few of them, secured through actual wage-earning experience.

This fact has been recognized in a recent ruling of the Federal Board for Vocational Education, in which there have been set forth certain minimum qualifications which, the Board believes, should be exceeded or met by those employed as supervisors. These qualifications include participating experience both in teaching a vocation and in some occupation on a wage-earning basis.

The successful working out of such a problem in the change of the character of equipment, and in the more efficient use of a given amount of floor space, as is shown in Diagram No. 11, could only have been brought about by the instructor and supervisor working in close coöperation, and by their both possessing adequate technical knowledge in the discharge of their respective functions.

Preparing Specifications for Lists of Equipment. — The manner in which specifications are drawn, when purchases of equipment are to be made or bids are to be secured, is important. The average instructor, while knowing the equipment or materials required, seldom prepares and furnishes this information in proper form for the administrator to use. It therefore becomes necessary for the administrator to revise lists of equipment and supplies in accordance with the customary forms and methods of listing used by business houses. The accompanying partial list of equipment illustrates one form in which these requests may come to the administrator.

BENCH AND TOOL EQUIPMENT

Anvil, Fisher, 75 pounds	1
Ax, hand	1
Bench, gluing, zinc top	1
Benches, work, single	10
Bevels:	
6-inch T, Stanley No. 1806	10
10-inch T, Stanley No. 1808	1
Bits:	
Auger:	
Irwin, $\frac{3}{16}$-inch	10
Irwin, $\frac{4}{16}$-inch	10
Irwin, $\frac{5}{16}$-inch	10
Irwin, $\frac{6}{16}$-inch	10

Braces, ratchet:	
8-inch sweep	10
10-inch sweep	1
Brushes:	
Counter, 12-inch	10
Glue	10
Chisels:	
Cold	2
Socket and tang:	
$\frac{1}{4}$-inch	20
$\frac{3}{8}$-inch	20
$\frac{1}{2}$-inch	20
Clamps:	
C-type, 8-inch	6
Iron bar:	
2-foot	6
3-foot	6
Saw	1
Wood, hand screws:	
10-inch	10
12-inch	10
Compass, beam	1
Dividers, wing:	
6-inch	10
10-inch	1
Drawknives, 8-inch	10
Drill, spiral	10
Figures, steel, $\frac{3}{16}$-inch, set	1

In this list the items have been alphabetized and arranged after the manner in which they might appear in an inventory. Some of the items include definite specifications as to make. Where competitive bids are to be secured, it usually happens that local supply houses object to board of education specifications that eliminate all but one particular make or brand. In most cases it is possible to effect a compromise by specifying the particular brand or make, followed by the phrase "or equal." It then becomes necessary for an occupationally competent person, such as an instructor, to pass upon the "equality," compared with the standard specified, of the various articles upon which bids are submitted.

A similar set of equipment specifications for a tractor course in vocational agriculture is given in the following list:

MATERIALS NEEDED FOR TRACTOR COURSE *

(One tractor for every four men enrolled.)

Supply of kerosene (10 gallons).
Supply of gasoline (2 gallons).
Supply of heavy oil (5 gallons), good grade.
Transmission lubricant (10 pounds).
Cup grease (5 pounds).
Shellac ($\frac{1}{2}$ pint).
Valve-grinding compound (any standard make).
Mechanics' blue (1 tube).

* Federal Board for Vocational Education, Bulletin No. 81.

Special gas, water, and oil gasket material (vellum).
Fine sandpaper (½ dozen sheets).
Gasket cement.
First-aid outfit.
Boxes for holding bolts, parts, etc.
Cans for old oil.
Waste (3 or 4 pounds).
Assorted cotters.
Assorted lock washers.
Blackboard (4 to 6 feet).
Benches and chairs for class.
Assorted plain washers.
Blacking material.
Can penetrating oil.

TOOLS

Breaker point file.
Bearing scraper.
Two sets socket wrenches.
Valve-adjusting wrenches.
Valve lifter.
Hammers.
Pliers.
Center punch.
Hack saw.
Files (6-inch flat).

In the foregoing lists the specifications are of a general character and would therefore leave a wide range of choice to the bidder or purchasing agent.

Where a definite article is desired, detailed specifications as to amount, size, quality, and make are necessary. The following order for a supply of lumber contains such detailed information:

10 pcs. $1\frac{3}{4}'' \times 6'' \times 10'$ S2S quartered W.O.
15 pcs. $1\frac{3}{16}'' \times 4'' \times 8'$ S2S1E Pl. W.O.
3 pcs. $2'' \times 4'' \times 16'$ No. 1 Y.P.

Equipment and Supplies. — Equipment is generally regarded as including all physical objects, exclusive of buildings and portions of buildings, that are expected to last from year to year when subjected to reasonable usage. This includes furniture, tools, machinery, books, typewriters, filing cabinets, lantern slides, charts, and all other articles of durable material that are ordinarily expected to continue in use for an indefinite period.

The term supplies is generally applied to those materials that are normally used up within the period of time for which the

budget is made. This definition excludes from the list of supplies those articles that continue in use from year to year, as do the various things defined as equipment in the foregoing paragraph. Supplies include such materials as paper, brooms, brushes, ink, chemicals, notebooks, and bulk materials used for the construction of demonstration apparatus, or of a manufactured product turned out by a school shop.

Factors Determining Procedures. — Probably nothing has caused more difficulty in vocational education than the inability of administrators to realize that the question of supplies in a vocational school is an entirely different matter from what it is in a general school. One of the authors has had the experience of trying to deal with a purchasing agent in a large school system who insisted that there was no reason why complete requisitions for annual supplies, covering the need for a whole year, could not be furnished one or more years in advance. He justified this assertion by pointing out that there was no difficulty in making this sort of recommendation with regard to textbooks, paper, chalk, erasers, and other standard materials of a similar kind, as used in general school classroom work.

Any vocational school that is giving real training on jobs is continually in need of additional stock material, and this material is often needed on an emergency basis. In the case of a course in automotive repair, giving instruction on a service garage basis, no human being, even if he were the " seventh son of a seventh son " can predict the kind of repair work that may come in during the course of a single day, a week, a month, or a year. This statement is equally true in the case of training on a job basis in plumbing, in carpentry, or in printing, when carried on under a program requiring a participating experience under productive working conditions.

The same statement applies in the case of cooking and sewing in home economics. No one can predict in advance the particular materials and supplies which will be needed for the preparation of foods, nor for the construction of garments, if these articles are to be produced under custom order conditions.

Need for Special Procedure. — While it is necessary for the administrator to protect himself, this is one of the cases where

ease in administration can not be placed in advance of efficiency. While properly protecting himself as the person ultimately responsible for financial expenditure, the administrator of vocational education should provide a business-like procedure whereby supplies can be secured when and as needed without any unnecessary delay.

Operating Points in Any Purchasing Procedure. — Whatever may be the details, there are nine steps in the purchasing procedure, as follows:

1. Origin.
2. Authorization.
3. Purchasing.
4. Selling.
5. Receiving.
6. Checking.
7. Auditing bills.
8. Approving bills.
9. Paying bills.

It may be noted that these nine steps are all involved in the fourteen functions enumerated in Table No. 15, on page 147, and that the necessary procedure, as already discussed, involves the first six steps.

Typical Situations. — In a large city school system, it is customary to find the function of purchasing agent included in the organization. In such cases there is usually a schedule of supplies against which requisitions may be drawn, a budget, and a highly functionalized staff. This is obviously a situation which lends itself well to "red tape" and delay, and which requires great ability on the part of the administrator to secure the acceptance of a procedure which will enable school supplies to be obtained on an emergency basis.

In a small city school system, there is frequently no purchasing agent, no schedule, no budget, and a non-functionalized staff. Here it is comparatively easy for the administrator to establish a procedure which will satisfactorily meet the necessary conditions for securing supplies promptly.

In the case of an independent vocational school, operating either

as a separate department of the city government, or as an organization independent of the general schools, the purchasing agent and supply schedules are usually omitted. The organization does, however, include a budget and a non-functionalized staff. This latter organization sets up the easiest conditions for securing a satisfactory procedure for the purchasing of supplies.

Functional Responsibilities in Various School Organizations. — The common functional distribution of the operating points, indicated in Table No. 15, on page 147, with reference to the three typical organizations discussed in the foregoing paragraphs, is given in Table No. 16.

Efficiency Factors in Setting up a Procedure. — Whatever procedure is set up, it will be efficient in proportion as the following statements are true:

1. It is workable.
2. It requires a minimum of time.
3. It represents a minimum of detail.
4. It requires a minimum expenditure of energy.
5. It offers a maximum of protection.
6. It involves the greatest simplicity in
   (*a*) Cost
   (*b*) Operation and
   (*c*) Back-checking.
7. It sets up a standard procedure which is easily understood.

In the field of trade and industrial education, the more closely any procedure which may be established follows a standard business or industrial procedure, the easier it will be to make it workable with occupationally trained instructors.

Storage of Supplies. — Supplies for vocational schools, and especially those for trade and industrial schools, cover an exceedingly wide variety of materials and widely varying quantity. The administrator is ultimately responsible for seeing that provision is made for the convenient storage and protection of these materials. The efficiency of storage facilities for shop materials is usually rated, as in any manufacturing plant, on two items, classification and accessibility. Proper classification makes it easy to identify any particular kind of material. Proper provision

TABLE No. 16

Distributions of Functional Responsibilities in Various School Organizations

Typical Organizations	Operating Points								
	Origin	Authorization	Purchasing	Selling	Receiving	Checking	Auditing Bills	Approving Bills	Paying Bills
Vocational school in a large city.	Teacher.	Director.	Purchasing agent.	Merchant.	Teacher.	Teacher.	Director or Purchasing agent.	Board.	Treasurer.
Vocational school in a small city.	Teacher.	Superintendent.	Clerk of board of education.	Merchant.	Teacher.	Teacher.	Superintendent.	Board.	Treasurer.
Independent vocational school.	Teacher.	Department head or principal.	Department head or principal.	Merchant.	Teacher.	Teacher.	Department head or principal.	Board.	Treasurer.

for accessibility makes it easy for that particular kind of material to be quickly and easily gotten out for use. There are a number of devices with which any occupationally competent instructor would be familiar, and the administrator should simply draw upon this technical knowledge for any information that he may require.

Funds Received from Productive Work. — A general school is operated entirely on a financial "outgo." Where vocational schools utilize productive jobs for instructional purposes, the product is frequently a source of income, although it never represents a profit. This is true, for example, in many girls' trade schools, where a considerable income is often derived from custom work in dressmaking and millinery. Many trade and industrial schools for boys turn out a considerable volume of material which meets a market standard, the product of such a school being either utilized by other activities within the school system, or sold.

The question of income from the sale of products, or of a credit for work or for products has proved to be one of the most troublesome problems in the administration of a vocational school, because the ordinary school machinery makes no provision for an income of this kind. The traditional procedure is to require that all such funds be turned into the general treasury and accredited to miscellaneous receipts. This practice has created a very unfortunate situation. In many cases the opponents of vocational education have taken advantage of it to show an apparent excessive per capita cost. This showing has been easily accomplished by the simple device of charging the school with the cost of all material and by crediting miscellaneous receipts with the income from the sale of products.

Procedure for Dealing with Income. — In recent years various procedures have been developed by administrators to overcome these difficulties. According to one procedure, where products are absorbed by the school system, it has been found possible to establish a method of crediting the vocational school with the market value of the product, or the work done. A second scheme has involved the establishment of a revolving fund from which the school pays for current supplies and into which is paid the income from the sale of products. According to a third scheme,

in the case of an independent vocational school, the school has its own appropriation, keeps its own books, and any income is credited against expenditures.

A fourth scheme is operated by charging to the vocational school the cost of all supplies for productive work, and then making a transfer on the books of the auditing department so as to debit other schools or departments in the school system, receiving the productive work, with the value of the cost of materials only. Under this scheme the vocational school receives no returns for the value of labor, since the productive work was not charged at market value, but only on the basis of the cost of materials. A modification of this scheme includes payment for labor as well as materials by the department served.

Special Administrative Problems. — Where a vocational school produces an income, there are involved certain special administrative problems which do not exist where there is no credit for such productive work. Among the more important of these problems are the following:

1. The establishment of a procedure for dealing with income and credit, in a fair and just manner.
2. The prevention of the exploitation of pupils.
3. The securing of satisfactory productive work for instructional purposes.
4. The satisfactory disposal of products.
5. Dealing successfully with objections which are sometimes made by certain community groups.
6. Setting up a satisfactory procedure for payment of pupils for certain productive work carried on outside of the usual school hours.

Procedure for Dealing with Income and Credit. — Whatever special procedure may be adopted for dealing with income and credit, the fairness and justice of this procedure may be measured by the degree to which the value of income and credit is actually set off against the cost of operation. Various typical schemes described in the preceding paragraph meet this standard in varying degrees. It would be an interesting experiment for the reader to evaluate each of these different procedures against this

standard, or to do the same thing for any other procedures with which he is familiar.

Problems arising from the necessity of securing productive work for instructional purposes, of disposing of products of productive work, and of preventing the exploitation of pupils, which is always a grave but avoidable danger where productive work is carried on, have been worked out in a variety of ways. Whatever the details may have been, these various procedures have always involved the recognition of two fundamental factors. These are, first, the right of the school to accept or reject any piece of work, or any given amount of work, on the basis of the presence or absence of instructional value; and, second, the right of the school to control the time of delivery.

Objections to Productive Work. — Many administrators, especially those chiefly familiar with general education, are greatly disturbed as to the possibility that such groups as organized labor, merchants, or parents and pupils will object to the utilization of productive work for training purposes. The administrator whose experience has been limited to general education has not had occasion to secure the coöperation of these various groups in carrying on his program. As a matter of fact, when these groups are invited to coöperate, after a conference in which full information has been given to them, and the whole proposition has been thoroughly discussed, very few objections ever arise. In many cases, organized labor has been the strongest factor in favor of utilizing productive work in vocational training, as in the case of apprentice training, and the same has been true of many groups of employers after they have thoroughly understood what it was all about.

If objections do arise, they can be met in several ways. (1) It is not difficult to demonstrate that in a genuine vocational school, where instruction rather than production is the objective, the total volume of school production is such an infinitesimal percentage of the occupational production of the community that it exercises no appreciable effect upon the market. (2) It is also not difficult to show that the employment of occupationally trained instructors withdraws from the labor market an amount of intelligence, knowledge, and skill which is fully equivalent to the total

productive capacity of the students under their instruction. (3) When the objectives are fully understood, practically all people engaged in gainful occupations will agree that the only practical way to train a recruit for their occupation is on real productive work. (4) Many employers have come to realize that if the boy or girl who has been trained in a vocational school is to be expected to render satisfactory service when employed, the training must be given on productive work.

As a matter of fact, present experience indicates that the objections to productive work in a vocational school are really based largely upon the fact that most of the so-called productive work carried on in vocational schools is not real productive work in the sense that the term is used by people actually engaged in gainful occupations. In many cases, the situation has actually been made worse rather than better by the attempts of administrators to avoid the more or less imaginary difficulties created by the objectives that have led them to accept non-productive work as a training agency.

The Payment of Learners. — The chief difficulty experienced by the administrator with regard to the payment of learners is usually an objection on the part of the superior authority. This objection commonly takes one of two forms, the first viewpoint being that a pupil has no right to be paid for getting an education. This attitude, of course, is due to the conditions that prevail in general education. The second objection to the payment of pupils is usually based upon the ground that vocational education is expensive, and if there is any way of making money out of it the community ought to derive the benefit therefrom.

As a rule, the pupils attending a vocational school, especially a trade school giving preëmployment vocational education in trade and industrial occupations, do not come from the well-to-do homes of the community. In many cases their attendance at the school means an actual sacrifice on the part of the adult members of their families. If such a school, dealing with boys or girls, is to serve adequately the group that it is intended to serve, that is, if it is really to accomplish the social purpose for which it is established, lack of financial resource for support should not exclude any individual from the possibility of attending the school.

This is the case much more frequently in the vocational school than in the high school, because those who must earn either drop out of the high school or never enter it at all. In many cases those who attend the vocational school must in some way contribute to the cost of their "keep" if they are to remain in school. Anybody who has ever served as the director of a trade school is familiar with the statement: "My folks can sleep me and eat me, but I have got to clothe myself and find my own pocket money."

One way of dealing with this situation is by giving to the pupils in a preëmployment vocational school all or a portion of the income derived from their productive work. The only alternative for these pupils is to secure the usual odd jobs which young people of limited means usually secure, in order to make sufficient money to enable them to stay in school. The vocational school commonly has a longer day than the ordinary general school, and for this reason it is much more difficult for the vocational school pupil to secure odd jobs of this kind.

Generally speaking, the situation has been handled in either one of two ways. According to the first method, arrangements are made whereby the pupils are given an opportunity to work for pay, outside of school hours, at the occupation for which they are taking training, but on work provided by the school under the direction of the instructor. This sometimes means Saturdays, holidays, and, in some cases, full-time work during the summer vacation.

The second scheme that has been followed is to pay the pupil a portion of the money received from the sale of the products which he turns out during the usual school hours. Under general conditions the first scheme seems to have more advantages than the second, while in certain special situations the second scheme seems to have worked extremely well.

As an illustration of wages paid to students, the following quotation is included from the 1926 announcement of the Lathrop Trade School in Kansas City, Mo.:

Lathrop Trade School, in doing a large amount of production work for the Kansas City school system, is enabled to pay wages to boys who are willing to work during vacations, Saturdays,

and before and after school. From a half to three-fourths of the boys attending Lathrop work at various times on production work. About $12,500 was paid to boys in wages during 1924–25.

A boy receives a rate of pay based on the average grade made in his shop and academic work. The average grade is figured on the basis of two parts shop and one part academic.

PAY SCHEDULE

	E	S	M	I	F
1st semester	.25	.20	.20	.15	.00
2nd semester	.35	.30	.25	.20	.00
3rd semester	.40	.35	.30	.00	.00
4th semester	.45	.40	.35	.00	.00

E Excellent, 90 to 100.
S Superior, 80 to 90.
M Average, 70 to 80.
I Inferior, 60 to 70.
F Failure, below 60.

Forms for Handling Supplies and Productive Work. — Sufficient forms for handling supplies and productive work should be provided by the administrator to enable him to maintain satisfactory records of the cost of materials and labor involved and the market value of the product. There are, in general, three different types of transactions of which adequate records should be kept. These types of transactions are summarized as follows:*

1. Transactions involving service (labor only) when no material is involved in the transfer, and the vocational school (*a*) does, or (*b*) does not, receive cash or an equivalent.

2. Transactions involving products of the vocational school (including profit) when both material (stock and supplies) and labor are furnished by the school, and the vocational school (*a*) does, or (*b*) does not, receive cash or an equivalent.

3. Transactions involving labor and profit on products when all material (stock and supplies) is furnished by the customer, or from an outside source, labor by the school, and the vocational school (*a*) does, or (*b*) does not, receive cash or an equivalent.

* Adapted from Administrative Forms, Bulletin No. 11, 1921, Whole Number 131, Massachusetts Department of Education.

These various types of transactions will occur with customers as follows:

1. The vocational school and a pupil.
2. The vocational school and the school itself.
3. The vocational school and another municipal department.
4. The vocational school and an outsider.

One of the authors, while employed as director of vocational education in a city school system, developed a series of forms which were found to work very satisfactorily in handling supplies and records of productive work. These forms included the following:

1. Order authorizing productive work. (In duplicate.)
2. Order for supplies and repairs. (In duplicate.)
3. Job ticket.
4. Pupil's daily time card.
5. Ready slip.
6. Office record envelope. (On back of a No. 10 manila envelope.)
7. Transfer of charges.

Form No. 1 represents an official order from the administrative authority authorizing the school to utilize certain productive work for instructional purposes. The productive work in this particular city was always limited to the needs of the school system. The form indicates the particular shop in which the work was to be carried on, the organization for which the product was being turned out, its market value, and the supplies especially ordered for use in turning it out. Where the project called for supplies usually kept in stock, this portion was left blank. Where special supplies had to be ordered, the instructor was usually called upon to furnish specifications as to both quantity and quality. This form was issued in duplicate.

Form No. 2, it will be noted, is drawn upon the chief engineer or the purchasing agent, and calls for repairs or supplies. It was usually issued by the administrator in response to a written request from the vocational school setting forth the need for repairs or additional supplies, or as the result of an estimate supplied by the instructor to enable him to carry out orders received author-

Form No. 1.

ORDER AUTHORIZING PRODUCTIVE WORK

Vocational Department

PUBLIC SCHOOLS

Kansas City, Mo.,.....

.....Shop .....School

Please make for.....

Market Value $.....

The following material as per my order No.....has been ordered to your shop. Please check its condition when delivered and report at once by telephone.

Supply Dept. No.....

Vocational Dept. No. 1200

Signed.....

Director Vocational Department.

Form No. 2.

ORDER FOR SUPPLIES, REPAIRS

Vocational Department

No. 200 Kansas City, Mo.,.....

To the { Chief Engineer (Repairs) / Purchasing Agent (Supplies)

Please furnish

.....School.....Dept.

Amount	Article	Estimated Cost	Cost
		$	$
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	Total	.....	.....
.....	.....	.....	.....

B. of E. No..... Invoice No.....

Respectfully,.....

izing productive work, as illustrated in Form No. 1. The requisition from the school usually originated with the instructor and was transmitted to the office of the administrator, with the approval of the principal. Form No. 2, when received by the chief engineer or the purchasing agent, was honored, provided previous authorization had been obtained from the Board of Education. This authorization might have been obtained through an approved budget, through general approval of productive work, or through a special approval of a particular project. The order was issued in duplicate and provision was made on the duplicate for noting the particular concern by which the materials would be furnished and the purpose for which they were to be used.

Form No. 3 was made up on a 3 by 5 filing card, and a supply of this form was furnished to the various schools doing productive work. The instructor was responsible for furnishing the information required on this form and, as noted, transmitted it to the office of the administrator immediately upon completion of the order. The reverse side of Form No. 3 provided a place for indicating the cost of materials actually entering into the output of that particular job.

During the process of utilizing the authorized productive work for instructional purposes, the instructor required the pupils to fill in a " Pupil's Daily Time Card," as shown in Form No. 4. These cards were then transmitted periodically to the office of the administrator and the total amount of pupil time, in hours, required to complete the particular project compiled therefrom. Instructors were able to note from the record on this card several significant facts, among which were, first, progress on the part of any individual pupil through repetitive training, and, second, comparative abilities of different pupils.

Form No. 5, " Ready Slip," was transmitted to the office of the administrator from time to time, as portions of an order were completed and made ready for delivery. It frequently happened that a project involved the work of several different shops. For example, the construction of 100 kindergarten tables would involve the cabinet shop and the painting department. Whenever a considerable portion of the order had been completed in the cabinet shop, the " Ready Slip " was transmitted to the adminis-

Form No. 3.

Supply Dep't. No.....

Job Ticket No.....

Voc. Dep't. No.....

Date Begun.....Date Finished.....

..... School ..... Shop

Description of Project.....

Made for.....

Call for same at,

Delivered to,.....

(Send this to the Director of Vocational Department immediately on completion of above work.)

(over)

(Reverse Side)

COST OF MATERIAL

Lumber..... $.....

Hardware..... .....

Paint, Oil, Glass..... .....

Electrical Supplies..... .....

Plumbing..... .....

Coke, Pig, Scrap Iron..... .....

Total..... $.....

Market Value..... $.....

Memo.....

.....

.....

.....

.....

.....

.....

Form No. 4.

PUPIL'S DAILY TIME CARD

....19..

Last name first

....

Shop School

Job No.	Description of Work	No. Pieces	Time, Hrs.
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

.....

Teacher's Initials

Form No. 5.

READY SLIP

Date.....

Supply Department,
Kansas City Public Schools,
The following is ready for delivery:

Please call at..... Shop.....School

Signed.....

trator for the purpose of having a transfer made to the finishing department, which in some instances was located in another building or in another school.

As a convenient device in which to file the various orders, authorizations, and notices relating to any particular job, an office record envelope was used. Form No. 6 was printed on the back of a No. 10 manila envelope and represented a summary of the information required in connection with any one particular job. The various orders, job tickets, and other items of information relating to the job were filed within the envelope, and the envelope in turn placed in numerical order within a vertical file.

Since the scope of productive work was limited to the needs of the public school system, it was necessary to devise a procedure by which the vocational school would be given credit for the additional expense to which it had been placed in turning out the product. This expense involved various items, such as lumber, hardware, paints, electrical supplies, plumbing, printing, foundry, sheet metal, masonry supplies, car fare, and, in certain cases, wages paid to pupils. All of these charges were originally debited against the vocational school in the office of the school department. On completion of the job, Form No. 7 was used by the administrative officer to indicate the work done by the various departments, for whom it was done, the material charged to each of these departments, the total cost, and the market value. On receipt of this form, signed by the director of the vocational department, the auditor credited the vocational school, and debited the organization for which the work had been done, with the total cost. The market value was usually determined by the architect, engineer, or purchasing agent, and only entered into the transaction in an annual report made to the Board of Education by the administrative officer.

Under these particular working conditions, the administrative officer proceeded with two guiding principles: (1) that the productive work should be utilized by the instructor to its fullest capacity for instructional purposes, and (2) that the total cost should not exceed the market value.

Form No. 6.

OFFICE RECORD ENVELOPE

Job No. Voc. Dept. No.

Ordered by Order No. Date

Description

Estimated Cost, $ Market Value, $

Date Wanted Date Finished

Made for

To be Made by

MATERIAL BILLS, PAY ROLLS, ETC.

Date	Order No.	Firm	Journal	Extension	Amount

Form No. 7.
Job No.————

TRANSFER OF CHARGES
Vocational Department
PUBLIC SCHOOLS

Kansas City, Mo.,————191—

Ordered by————— | Date————
Order No.————
Made for————

Quantity Ordered———— Furnished————	Description

Work Done by	Material Used	
	Lumber	
	Hardware	
	Paint, Oil, Glass	
	Electrical Supplies	
	Plumbing "	
	Printing "	
	Foundry "	
	Sheet Metal "	
	Masonry "	
	Carfare	
	Labor	
	Total Cost, $	Market Value, $

Material bills, and pay rolls for above have been charged as follows:

Journal Account	Extension	Amount

Memo. —

Approved————————
Director

School Statistics Regarding Productive Work. — The records to be kept by the administrative officer of the school will vary considerably. Where it is desired to accumulate statistical information of a rather complete character, giving in detail the cost of maintenance, the cost of material, the cost of labor, and classified information as to the disposal of the products, a record identical with that called for upon Form No. 8, or similar to it, may be used to advantage. This form is one of a series of five or more provided by the Massachusetts Department of Education, Division of Vocational Education, for securing vocational school statistics, and is applied to the various types of organizations in the fields of agriculture, trades and industries, and home economics.

Forms for Agricultural Projects. — In the keeping of agricultural project records, it is not necessary that an elaborate system of accounting be used. Simplicity and accuracy, together with complete information, are the principal factors to be considered in setting up a procedure. The chief object in securing this information is to show the boy the great need for keeping records, and to get him in the habit of doing so.

A complete system of project records will require forms for the following reports:*

1. Two inventories, one taken at the beginning of the project season and the other when the project has been completed (Form No. 9).
2. A project labor record (Form No. 10).
3. A complete record of all expenses incurred, other than labor (Form No. 11).
4. Receipts or sales records (Form No. 12).
5. A financial summary (Form No. 13).

* Taken from the Agricultural Project Record Book by W. T. Spanton, published by W. M. Welch Mfg. Co., by permission of the author.

Form No. 8.

SCHOOL STATISTICS REGARDING PRODUCTIVE WORK

Statistics Regarding the Maintenance Cost and Productivity by Courses

.....School

Year ending August 31, 192....

Type of School	Write in the Column Below the Names of Courses	Total Maintenance Cost (by Courses)	Values Involved				
			Service Values	Material Furnished by School	Material Furnished by Customer	Value of Labor	Market Value of Product
	1	2	3	4	5	6	7
Evening Industrial (Men)							
Evening Industrial (Women)							
Evening Home Making (Women)							

Form No. 8.

SCHOOL STATISTICS REGARDING PRODUCTIVE WORK — *Continued*

Type of School	Values Absorbed by Municipality							Values Absorbed by Private Agency				Total Tangible Productivity
	Cash Received from Work and Products	Equivalent	Actual Credits	Neither Cash Equivalent nor Credit: Material from Vocational Funds	Neither Cash Equivalent nor Credit: Material from Other Municipal Funds	Neither Cash Equivalent nor Credit: Labor, Overhead and Profit	Values Created for School	Customer Furnishes Material	No Charge for Material Furnished by School	No Charge for Labor, Overhead, or Profit	Charge for Labor but Pupil Profits	
	8	9	10	11*a*	11*b*	11*c*	12	13	14	15	16	17
Evening Industrial (Men)												
Evening Industrial (Women)												
Evening Home Making (Women)												

Form No. 9.

INVENTORY

(Use actual market value at farm)

Item	Beginning of Project			Close of Project		
	Amount	Price	Total	Amount	Price	Total
		Total,	$		Total,	$
Increase / Decrease in value			$			$

Form No. 10.

PROJECT LABOR RECORD

Date	Kind of Work	Amount and Cost								Total for Labor
		Self		Others		Horse		Tractor		
		Hr.	Cost	Hr.	Cost	Hr.	Cost	Hr.	Cost	
	Brought forward,									
	Totals,									

Form No. 11.

EXPENSES — (Other than labor)

(To include such items as feeds, fertilizers, purchase price of stock, seed corn, etc.)

Date	Item	Quantity	Price per Unit	Charges		
				Cash	Not Cash	Total

Form No. 12.

RECEIPTS OR SALES RECORD

Date	Item	Quantity	Price per Unit	Sold for Cash		Used at Home		Total Receipts
				Quantity	Value	Quantity	Value	

Form No. 13.

SUMMARY OF PROJECT

(To be torn out of record book and kept in the school by the teacher as a part of the regular school records)

Name of boy——————————Kind of Project——————————

1. Total number of { animals / acres } in project
2. Total production (give in pounds, tons, bushels, dozens, etc.)
3. Value of production:

Amount sold and used	$
Amount on hand (from closing inventory)	$
Total	$

4. Cost of production:

Amount on hand (from opening inventory)	$
Total labor cost	
Total expenses other than labor — (seeds, fertilizers, sprays, animals, feeds, etc.).	
Total rent — land, buildings, equipment, etc.	
Interest on investment	
Depreciation	
Total	$

5. Total net profit or loss $
6. Paid self for labor $
7. Total income from project $
8. Cost per unit of production. $

In addition to the five project record forms prepared for the use of the pupil, forms should be provided on which the teacher can report to the administrator a summary of all projects. This report should include, for the entire school, a summary of each project, giving yield, number begun, number completed, scope, total expense, total receipts, and pupil income; and, for each pupil, such information as the following:

1. Name.
2. Age.
3. Subjects studied.
4. Scope of home project.
5. Yield.
6. Charges.
7. Credits.
8. Income.
9. Hours of labor.
10. Number of supervisory visits by teacher.

Maintaining Inventories. — Under any business-like procedure there must be some system of keeping track of materials on hand, which means the keeping of some kind of an inventory. In the keeping of inventories, there are three standard procedures which may be designated as (1) perpetual, (2) continuing, and (3) periodical. A perpetual inventory is one so kept that it tells exactly, at any given time, the amount and variety of material on hand. The term continuing inventory has been applied to those inventories that are periodically brought up to date, usually on the basis of an annual checking. This checking is made by the process of addition and subtraction, the addition being the new equipment and supplies that are added, and the subtraction those that are used up or lost.

The so-called periodical inventory is, in fact, not an inventory at all but a stock taking at periodic intervals. The stock at hand is counted up, and between the intervals no record is kept of acquisitions and losses.

Advantages and Disadvantages of the Various Procedures. — From the standpoint of control, the perpetual inventory is the most efficient; at the same time, it is probably the most expensive. The reverse is true of the periodic stock taking; while the continuing procedure is intermediate between the two. In deciding which of the three procedures should be utilized, there are certain factors to be taken into consideration:

1. The frailties of human nature.
2. Complexity of data.
3. Cost of operation.
4. Character of supporting service required.
5. Size of the proposition.
6. Degree of control necessary.

Human nature must be taken into consideration because no scheme can be successfully maintained in which those who are responsible for the original source of the data can not or will not discharge their initial responsibilities. In proportion as any plan for securing inventory data requires the expenditure of a large amount of time on the part of busy people, or requires a considerable amount of special training for the correct furnishing of the data, it becomes more and more undesirable as a practical working scheme.

As data become more and more varied, it is obvious that somebody must do more work in collecting them and that the recording system for the inventory must become more elaborate.

The more elaborate the recording system, and the greater its detail, the greater will be the expense and the greater the amount of time necessary to maintain it. An inventory scheme that requires a clerk, specially trained, at a salary of $1800 a year, may be worth while; but the cost is much more than that of an inventory that can be kept by any member of the staff. Again, a choice between the different types of inventories might be affected by the amount of investment involved. It is conceivable that an inventory representing an investment of only $1000, as compared with one representing an investment of $100,000, might involve very different considerations as to the cost of operation. In the case of the larger investment, it would probably be worth while to employ an $1800 expert clerk to keep the inventory.

The Purpose of an Inventory. — The purpose of an inventory, so far as the administrator is concerned, is to serve as a guide in approving or disapproving requisitions, and as a property record. In order to serve these purposes in a satisfactory manner, it is evident that, under different conditions, a wide variation in degree of differentiation of inventory items would be necessary. In a

unit trade school, where six or more trades are taught, it is possible that a higher degree of item differentiation is desirable for adequate control than is necessary in an agricultural department in a high school where fifteen boys are enrolled.

In considering the setting up of any inventory, an administrator must proceed through at least four steps. First, he must make a choice of a scheme, based upon an evaluation of the factors discussed in the foregoing paragraph, this choice being made in terms of his particular situation; second, he must make a choice of the particular device which will best serve his purpose; third, he must determine the particular way in which the data to be recorded will appear on the record; and fourth, he must establish a procedure for securing the data from original sources.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. An independent vocational school has 600 students enrolled, and teaches seven different trades. There is no purchasing agent, no budget, and no schedule. Under these conditions, which of the three types of schemes for an inventory would you recommend?

2. Set up a form for recording inventory data under the scheme that you recommended in answer to question 1, and give definite reasons for suggesting that particular form.

3. Set up the different steps in what you regard as the efficient procedure for securing data under the conditions in questions 1 and 2.

4. Discuss the relative degree to which demands for additional equipment and material can be anticipated by the administrator in: (*a*) A program composed entirely of short-unit trade extension courses; (*b*) a non-coöperative, preëmployment day trade school; (*c*) an agricultural department in a high school; and (*d*) a clothing construction course in a home economics department in a high school. If not sufficiently acquainted with the above types, secure information from some one who is.

5. What facts would you take into consideration in approving or disapproving a requisition for an additional piece of equipment?

6. If the requisition was for the replacement of any piece of equipment, would this information change your functioning facts? If so, in what way?

7. Make an analysis of the functioning responsibilities in some school system with which you are familiar, and point out, for each pay roll job, the particular functions which are included in that job.

8. A certain piece of equipment, after having been purchased, is found to be unsuited for instructional purposes. To what degree, and in what way, would the administrator who approved the requisition for its purchase be responsible?

9. Using the forms for handling supplies and productive work, suggested on pages 166 and 167, rate their efficiency in terms of the factors given for setting up a procedure as enumerated on page 183.

10. What are the relative advantages and disadvantages of the practice of turning earned income into the general fund and the other typical procedures described in the text on page 159? Rate these advantages and disadvantages from the standpoint of (*a*) ease of administration, (*b*) ease of financial recording, (*c*) fairness and justice, (*d*) the efficient performance of a social service.

11. If you were called upon to appear before various organized groups to secure their coöperation and approval for a program of training based on productive work, what would be your argument with each of the following:

(*a*) Central labor councils.
(*b*) Manufacturers' associations.
(*c*) Retail merchants' associations.
(*d*) Service clubs.
(*e*) Women's clubs.

12. Draw up a set of specifications which you would approve as an administrator, for the storage, protection, arrangement, and accessibility of materials for shop instruction in any given occupation.

CHAPTER IX

ESTABLISHING AND ADMINISTERING STANDARDS

Preliminary. — The administrative function is only concerned with standards, tests, and scores to the extent that they provide data from which the administrator may correctly evaluate the condition of all or any part of the program for which he is ultimately responsible. Since the correctness of any evaluation depends upon the reliability of the data utilized, the administrator is acutely concerned with the data used to evaluate his program. If the data utilized are unreliable or misleading, he will be in danger of taking administrative action or of coming to decisions which will react very unfavorably on his program and which may, in fact, lead to the defeat of the very purposes for which it was established by the community. Hence, the selection of standards, tests, and scoring procedures, and the acceptance or rejection of proposals to utilize standards, tests, or scores become very vital problems for any administrator.

Apart from the question of the utilization of any system for the securing of data, the administrator is responsible, from the standpoint of general efficiency, for seeing that proposals for securing data are not approved unless it can be shown that such data will serve a necessary purpose.

The problem of securing all kinds of data, without regard to their correctness, is simplicity itself; but the problem of securing *reliable* data is one of the most difficult with which an administrator of vocational education has to deal. Its difficulty has led to the substitution of a number of varieties of pseudo data which are largely derived from data collected for use in the general schools, and which are secured by the use of standards, tests, and scores of the type developed for use in the field of general education.

For example, in any vocational school it is easy to set up standards for pupil progression in shop skills or in the mastery of

technical problems in terms of percentages, and to establish a " passing mark " of 70 per cent, with scores secured through tests represented by recitation and informational examination marks. Such a procedure is in accord with much present general school practice. It requires little discussion to show that whenever the presence of actual doing ability is in question, the use of conventional tests, scores, and standards, as indicating actual pupil progression in a vocational training course, gives little or no reliable data on which conclusions can be based. Hence, the data would show nothing as to the actual efficiency of the program. The same statements can be made with regard to numerous other data obtained through the use of other standards, tests, and scores of a similar character.

The practical use of standards automatically involves the setting up of tests and the securing of scores as a result of the application of the tests. Any set of standards, tests, or scores is set up for the purpose of determining the degree to which some specific objective has been attained. There are several different possibilities: (1) The objective may be clear but the standards set up may be unsuitable; (2) the objective may be clear and the standards may be suitable, but the tests may be unreliable; (3) the objective may be clear, the standards suitable, and the tests reliable, but the method of scoring may be entirely unreliable, or the conditions under which the tests are conducted may be such that the scores obtained lead to totally unreliable data; and (4) the objective may be clear, but there may be no standards, tests, or methods of scoring which can be relied upon to serve the desired purpose in a satisfactory way. In view of these four possible conditions which may confront an administrator of vocational education, there is evidently danger that he may be led into serious error, or even into embarrassing situations, unless he uses great discretion in the official approval of tests, scores, and standards in vocational educational work.

It is evident from an examination of Table No. 17 that reliance can not be placed upon the final data unless the whole procedure constitutes a chain in which every link is reliable, as is the case in situation (1). In the table, (×) indicates reliability and (?) unreliability.

TABLE No. 17

VARIOUS POSSIBLE SITUATIONS IN THE USE OF STANDARDS

Situations	Objective	Standards	Tests	Procedure	Score
1	×	×	×	×	×
2	×	×	×	×	?
3	×	×	×	?	?
4	×	×	?	?	?
5	×	?	?	?	?
6	?	?	?	?	?

As an illustration of situation (1), it is generally recognized that the Binet tests and their derivatives for handwriting progression are reasonably reliable. If the objective of an administrator is to ascertain the number of children in a certain grade who have attained the Binet standard of performance for that particular grade by the use of standard Binet tests scored by these standard procedures, he will secure data entirely reliable for that particular objective. If, on the other hand, he uses the Binet tests for determining the efficiency of the teaching, the data secured will be entirely unreliable, for obvious reasons. In a similar way the objective may be to ascertain the degree to which a junior high school is promoting efficient choice in selecting an occupation. The standards set up may be an enrollment to the maximum capacity of the building. The tests may be a count of the number of students enrolled. The procedure is merely counting, and if enrollment is divided by the capacity the resulting quotient, expressed as a percentage, is reliable numerically, but it has no correlation whatever with the objective; and any action based upon the assumption that this percentage did correlate would be extremely unfortunate.

As another illustration, suppose that the administrator has no definite idea as to what special social function a vocational school is supposed to discharge, as between pre-vocational education, manual training, industrial arts, and vocational education; and, further, suppose that he bases his conception as to the social efficiency of the various schools or courses on the actual enrollment. As he has no definite objective, although he does have

perfectly reliable data, it is evident that he does not know any more than he did before, either as to the actual social value of the school to the community or as to anything else except the actual enrollment. He can make a guess, and on that basis can conclude that if the enrollment is up to full capacity in each case, all schools or courses are rendering to the community the special services that they were established to give; or he can assume that the ratio of enrollment to capacity in each case represents the percentage of service rendered. Deductions of this character are obviously pure assumptions, because there is, in fact, no correlation between the data obtained and the conclusions drawn.

Table No. 17 shows that if, at any point in the series between a clearly defined objective and the final data, there enters any question as to the reliability of the standards set up, or as to the reliability of the tests selected, or any doubt as to the correctness of the scoring procedure, or as to the reliability of the final scores obtained, the whole proposition is vitiated from the standpoint of the purpose for which it is set up and operated. If carried out under such conditions the only result, as far as an administrator is concerned, must inevitably be misconceptions as to the situation. In fact, these misconceptions will be positively misleading, since the situation, as it is indicated by the data, is entirely different from that which was assumed to exist. In other words, if there is any question as to the reliability of any link in the chain of procedure upon which the administrator bases his standards, tests, and scores, he is in a worse situation than if he were without any information at all, since he will be acting upon data which he thinks are reliable when, in fact, they may be unreliable.

The Administrator, Standards, and Tests. — The administrator is ultimately responsible to his superior authority for the social efficiency of the program. He can not afford to allow himself to be misled through the acceptance of misleading data or through unthinking utilization of standards or tests simply because they have been used in other fields. In the field of vocational education there are many situations where a judgment based upon experience is the only reliable guide. The administrator who fortifies himself within his office with a mass of data which are supposed to indicate relative conditions with regard to various situa-

tions vitally affecting the efficiency of his program, and which he believes do indicate the true facts of the case, but which, as a matter of fact, are misleading, is evidently uninformed or misinformed.

In vocational education, ultimate social values are, to a considerable extent, checked up by the results of actual performance tests applied and evaluated by the workers or employers in the occupation itself. The final acid test of any program of vocational education is the ability of the learner to go out from the training course, get a job, and perform the duties of that job at least sufficiently well to meet minimum occupational standards. If this is true with regard to a vocational program, no amount of data based upon tests of intrinsic intelligence, upon enrollment, upon the character of equipment, upon qualifications of teachers, upon the cost of buildings, upon per capita cost, or upon statements by instructors, has any bearing upon the facts of the case. The truth of this statement will be very quickly demonstrated to an administrator after he has had to deal with a group of employers who say that they have tried the products of his program and do not care to employ them any more.

The foregoing statements should not be interpreted to mean that there are no objectives in vocational education for which, as a measure of their attainment, reliable standards, tests, and procedures are highly desirable. There are, as a matter of fact, a great number of such objectives. Nor do these statements necessarily mean that at the present time there are no objectives in vocational education for the attainment of which reliable standards can be established. At present, all of the different situations indicated in Table No. 17 exist. There must still be much research and experimentation before educators will be in possession of reliable standards, tests, and scoring procedures with regard to many of these desirable objectives. Attention is also called to the danger of accepting standards, tests, and procedures which are now known to be unreliable even in the field of general education, and which are known to be still more unreliable in the field of vocational education.

Need for Standards. — There is a great need for standards of a reliable character as a basis for intelligent control of any program

of vocational education. Certain desirable objectives that may be attained through the use of standards are as follows:

1. To establish a definite goal for teacher and supervisor.
2. To establish just and reliable conditions for admission, promotion, and graduation from vocational programs.
3. To make possible the setting up of more definite objectives.
4. To secure a better classification of students.
5. To secure better coördination between teachers.
6. To secure a more economical use of the time of both pupil and teacher.
7. To ascertain the most efficient and economical instruction conditions.
8. To establish standards for inspectorial purposes.

Kinds of Standards. — In vocational education, there are probably no objectives the attainment of which is less capable of accurate measurement by existing devices than those concerned with:

1. Pupil progression.
2. Teaching efficiency.
3. Functioning subject matter.
4. Buildings and equipment.
5. Supplies.

In all these groups of objectives, about all that is known is that the ordinary standards of the general school do not apply. Up to this time, little or no progress has been made either in the setting up of reliable standards or in the devising of reliable tests and procedures for measuring the degree of attainment of these objectives through the application of reliable standards. It is known, for example, that in shop work students progress in varying degrees in the acquisition of skills, and in their ability to apply technical knowledge on the job. It is possible, in a rough way, to determine minimum employment standards; but there are no reliable means of determining how far, at any given time, a given student has progressed between zero, on the one hand, and the ability to meet these minimum employment standards, on the other hand. There are no accurate methods of separating those who can profit

by vocational instruction from those who can not. In the previous chapter the statement was made that the development of reliable standards for the evaluation of construction, of space allotment, and of character of supplies and equipment, is yet very largely in the twilight zone. Most of the decisions which are made with regard to the stated objectives must be made largely on the basis of personal judgment, and it is no reflection upon any administrator to admit this fact, nor is it a reflection upon his ability if he refuses to accept conventional standards and tests that do not function in his field.

Conventional Standards for Pupil Progress. — A number of the more common conventional standards that are used in determining pupil progression are indicated in Table No. 18.

TABLE No. 18

CONVENTIONAL STANDARDS FOR PUPIL PROGRESSION

Standards	Admission	Promotion	Demotion	Graduation	Certification	Employment	Follow Up	Special Action
I-Q	×	—	—	—	—	—	—	—
Mark or grade	×	×	×	×	×	×	—	×
Health	×	×	—	×	×	×	—	—
Performance	×	×	×	×	×	×	×	×
Age	×	—	—	—	×	×	—	—
Race	×	—	—	—	—	×	—	—
Attendance	—	×	×	×	×	—	—	—

Probably the only two of the standards given in Table No. 18 that have any real bearing on admission to vocational schools and classes are those indicated by the terms " Health " and " Performance." For legal reasons, or under certain special conditions, age or race may constitute a basis for the admission or rejection of applicants for a given course in vocational education; but race, as such, certainly has little or nothing to do with evidence of

ability to profit by vocational instruction, and chronological age bears only a very general relation thereto, serving at most as a basis — and not a very reliable basis at that — for the setting up of legal minimum admission requirements. For illustration, the fact that an applicant for admission to a vocational class or course is 13 years and 9 months of age chronologically, and is of Italian parentage, and that another applicant for admission to the same school is 14 years and 2 days of age chronologically, and is of Irish parentage, has little or nothing to do with the ability of the two individuals to profit by the instruction.

The same general statement can be made with regard to other progression items given in the table. There is apparently no very reliable correlation between the pupil's intelligence score and his ability to profit sufficiently by vocational instruction to meet or exceed occupational standards of performance; at least, there is no such correlation as would warrant the use of conventional "I. Q." standards as determining factors for admission or rejection. However, there appears to be a sufficient correlation between the "I. Q." standard and the "expectation of life" in the general school to warrant the consideration of this standard in giving advice as to the choice between vocational and general educational programs during the adolescent period. Dr. Richard D. Allen has shown through his studies in the schools of Providence, Rhode Island, that as the "I. Q." of a given individual drops below a certain value, it becomes less and less probable that he will be able to remain in the academic high school. He will either prove to be unable to meet the standards there established and will be forced out, or he will voluntarily leave school. Usually, under either of these conditions, the ex-student drops into some casual job.

This fact has led to some confusion between the value of the "I. Q." in predicating "expectation of life" throughout the secondary school and college, and its value as indicating ability or inability to profit by vocational instruction in the economic sense. This confusion has, unfortunately, led to certain undesirable results in administrative procedures affecting the type of pupil who should properly be admitted to vocational schools and classes.

Anyone familiar with educational work knows how widely the several standards given in Table No. 18 vary in their actual use in the administration of vocational education. The percentage mark or the percentage grade is probably still used in the great majority of vocational day schools. Such standards as the actual performance of the trainee under job conditions are gradually coming into use to some extent, but only on the basis of individual judgment, usually that of the instructor. Certain studies that are now being carried on may lead to the ultimate establishment of reliable quantitative tests and standards, with regard to pupil progression, ability, and acquirement of skill; but they have not been secured as yet, at least to any degree that warrants their utilization by an administrator of vocational education.

Length of attendance is still used in many cases as a basis for promotion, graduation, and certification, in the same way that it is used in the general schools. So far as vocational education is concerned, such standards, tests, and methods of grading should not be considered as giving reliable information, if the objective of the program is to bring the learner up to minimum employment standards of performance.

With the exception of age and race restrictions, the other standards mentioned in the table appear to be of little or no value in determining pupil progression, admission, or graduation in vocational schools or classes, whatever may be their value or lack of real value in the fields of general education, with which question we are not here concerned.

Standards of Teaching Efficiency. — Very much the same situation exists with regard to standards of teaching efficiency as in the case of standards for pupil progression. Certain conventional standards, derived from experience in the general school, are in common use in vocational programs. The proportion of the instructional group attaining a given passing mark or grade is often considered as one reliable indication of the efficiency of the work of the instructor. His ability to maintain discipline of a military or repressive character is frequently another, and his instructional ability is often judged by the grade of his official certificate. Even the popularity of the teacher has often been considered as correlating with his instructional ability.

Even in general education, such evidence is so indirect and so distantly related to real teaching ability, that it has little or no value when utilized as a basis for establishing administrative standards. In fact, in any field of education, the only reliable basis for evaluating the work of a teacher is the ease and thoroughness with which he works, as judged by the time and effort expended and the character of the abilities of the students that he turns out.

Evaluating Actual Teaching Ability. — There are many factors which affect the desirability of any individual as a member of a teaching staff. Personal characteristics, manners, customs, temperament, morals, and race or religion may all affect the rating of the individual as a desirable or undesirable member of an educational organization. These qualities, however, have nothing to do with his actual teaching ability. For example, a man may be an undesirable citizen of the United States, because he is actively opposed to the existing form of social organization; but at the same time he may be an entirely efficient coal miner, locomotive engineer, or farmer. In the same way, an individual may, for various reasons, be a more or less undesirable member of a teaching staff, while at the same time he may possess a high or low degree of teaching ability. The following discussion, therefore, deals entirely with teaching ability as such, entirely independent of manners, morals, personal appearance, personal characteristics, or any other factors which might affect the general standing of a given individual as a desirable or undesirable member of a staff.

Two questions enter into the problem under the foregoing conditions: first, " What constitutes teaching ability when regarded as an instructing function?" and, second, " Can such ability be relatively measured for different individuals, and if so, how?" Up to the present time, most attempts to rate teachers have been on the " citizenship " rather than on the functional basis. Obviously, all such rating points as ability to maintain discipline, willingness to coöperate, and loyalty to superior authorities, are comparable to the " citizenship " rather than to the " coal-mining " ability factors, and may be dismissed without further discussion.

Before taking up the question of the determination of actual

teaching ability, it is necessary to point out two distinct theories as to the function of a teacher. The older theory, which is still prevalent to a considerable extent in vocational education, is essentially that the business of a teacher is to force education into a more or less reluctant pupil through the use of such devices as good teaching technique and the promotion of interest, or, if necessary, by the use of more stringent methods. However he may do it, his business is to "educate" the learner. Hence, according to this theory, the teaching function is efficiently performed in proportion as the "forcing process" is carried out successfully.

According to the second theory, the business of the teacher is to assist a learner to acquire additional equipment for social adjustment. In the field of vocational education, the equipment that is to be acquired belongs to that part of his social adjustment which is related to his economic productive ability. According to this second theory, the ability of the vocational teacher must be measured, if it can be measured at all, in terms of the additional economic productive ability acquired by the learner. According to the first theory, attention should be directed to the character of the teaching, and all judgments should be based upon the procedure followed; while, according to the second theory, attention should be directed toward the character of the "product" resulting from the procedure, *i.e.*, the added ability of the student. According to the first theory, it may be said, in the language of the surgeon, that if the technique has been good an operation has been successfully performed, whether the patient has lived or died. According to the second theory, the operation is successful only when the patient is cured.

In so far as vocational education is concerned, since the only standard that can properly be applied in rating the efficiency of any vocational teaching is the resulting ability of the pupil to meet performance standards, any attempt to evaluate teaching ability must be based in some way, not upon the character of the technique, but upon the degree to which the use of technique makes it easier for the learner to secure an increased job-performing ability.

If the above reasoning be accepted by the reader, it is evident

that any attempt to compare the teaching ability of different teachers on the basis of the percentage of their students who attain a given percentage mark, or by an observation of the pure technique which they use in teaching, will not give reliable data. This is a statement about which one can be certain.

When it comes, however, to a question of what *can* be done, all kinds of difficulties are encountered. It is now known that individuals differ widely in their ability to progress educationally, and that the rate at which they are able to progress has nothing to do with the ultimate total ability which they may secure. It is not uncommon to find, in vocational education, that a learner who progresses relatively slowly ultimately becomes a better worker than a student who, at first, progresses more rapidly. In view of these facts, the teaching ability of different instructors can not be fairly and justly compared on the basis of the different time intervals required for their pupils to progress through various stages of acquisition of knowledge, skill, and occupational intelligence. Can it be said that 100 per cent teaching ability exists only where every member of the instructional group ultimately reaches the ability to meet occupational standards on a performance basis? If so, there are only two grades of teaching ability, one being 100 per cent and the other 0 per cent.

In the face of the foregoing statements, it is evident that up to the present time, in the field of vocational education, no reliable standards or tests have been developed by which the teaching ability of different instructors can be quantitatively compared. If the opinion of the authors, as stated in the foregoing paragraphs, is correct, about all that can be said is that the best teaching ability is that which has best assisted the individual who most required assistance to attain the objective for which he was pursuing the vocational educational path; and this ability, at present, can not be expressed in statistics but only as a matter of judgment.

The authors have discussed the evaluation of teaching ability at some length, for two reasons: first, on account of the common confusion between what may be called "good staff citizenship" and direct functional teaching ability; and second, because it has seemed desirable to draw the attention of administrators of vocational education to some of the dangers involved in under-

taking to set up quantitative standards for evaluating teaching ability, at least until the question has been further solved through research and study. It is the opinion of the authors that, for many years to come, any evaluation of teaching ability in vocational education must be based entirely upon the judgment of the experienced administrator or supervisor rather than upon any attempt at quantitative evaluations based upon administratively established standards and tests.

Evaluating Subject Matter. — The statement may as well be made in the beginning that there can be no question of evaluating content in the field of vocational education on any relative basis. Any given content either functions in the occupation, or it does not function, and different kinds of content may function in various ways. One measure of the value of a given kind of content is the probability of its repetitive use in the practice of the occupation. There has been considerable confusion between the facts just stated and the question as to whether any particular kind of content does or does not function in a particular occupation for which training is being given.

The basis on which content should be accepted or rejected as functioning in any specific training course is very easily determined. It is simply necessary to ascertain from some occupationally competent group whether the content is or is not used in the practice of the occupation itself. The practical procedure consists essentially in the working out of suitable classified content analyses, and in the subsequent development of these analyses into the detailed subject matter.*

The interest of the administrator is simply to assure himself that time, money, and effort are not wasted in including, in courses of study relating to different specific occupations, content that does not actually function. In this, as in a number of other cases, the administrator can not be expected to serve as a technical

* One of the best examples of the results of such a procedure is Bulletin No. 52, "Theory and Practice of the Machinists' Trade," issued by the Federal Board for Vocational Education, and the detailed development of the technical content in mathematics and in science, by Frank Cushman, in the two books, "Mathematics and the Machinist's Job" and "Science and the Machinist's Job," both published by John Wiley & Sons, New York, N. Y.

expert. He can not be expected to possess the necessary technical skill to make content analyses in coöperation with occupationally competent individuals or groups, or to construct curricula from such analyses. He is, however, responsible for the expenditure of funds and for the rendering of the particular kind of social service which is expected from a given vocational training course. To this extent he must assure himself that all content included in any given vocational course does actually function, and that the objectives of the course, whether directly stated or obviously implied in the character of the content, are in line with the general objectives of the particular course in question.

For example, some of the content now being included, under the general caption of related subject matter, in many vocational programs, is merely motivated general educational content. Other content, which is claimed to have "implications in vocational education," is also being accepted. This is illustrated, for example, when a course in general descriptive chemistry is included in a general vocational program for machinists, or for students in vocational agriculture. Examples of this kind can be multiplied many times. Such cases are due to faulty administration, to the extent that the administrator has not reasonably guarded himself against the authorization of expenditure of funds for the teaching of content that, on careful examination, can not qualify as functioning content. Under such conditions he has not adequately discharged his specific responsibility from the standpoint of his administrative function.

The Evaluation of Types of Organizations. — There have now been developed in the field of vocational education a number of typical organizations for schools and classes. The number of these varying types is being continually increased as programs are more and more developed to meet the needs of an increased number of specific social groups. In the discharge of his responsibilities, an administrator will frequently be called upon to approve or to disapprove recommendations or proposals calling for the utilization of one or the other of these various types. As in cases already discussed, in dealing with such problems, an administrator can not discharge the functions of an expert technician; nevertheless, since he is ultimately responsible for the social

results, his approval or disapproval should be based upon the ability of the proposed organization to render, to the maximum degree, the particular service that is contemplated.

In proportion as an administrator is able to make such determinations intelligently, from the standpoint of the actual needs to be met, and the probability that the proposal under consideration will meet these demands, he will be able efficiently to discharge these particular responsibilities.

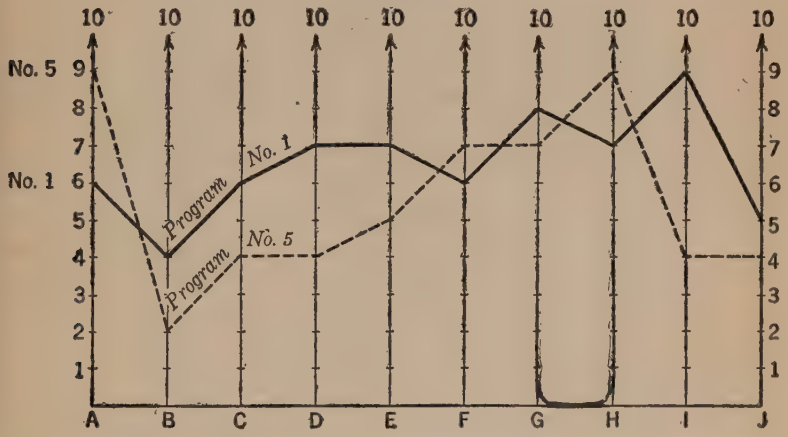
The Evaluation of a Specific School or Program. — The preceding discussion relates to the factors that should be given consideration in determining the relative efficiency of different types of organizations, such as those given in Table 16, on page 158. Aside from the theoretical social efficiency which may be assigned to any given vocational program, the organization selected to carry that program into effect may show all degrees of efficiency. For the purpose of evaluating the probable operating efficiency of any given program, certain rating factors have been suggested. These factors are indicated on Diagram No. 12, as rating characteristics of any vocational program. In proportion as these characteristics appear, it can be assumed that the program, under the proper working conditions, will be socially efficient in terms of vocational objectives. In proportion as these same characteristics do not appear, it can be safely predicated that the program is, to that extent, socially inefficient.

These ten fundamental characteristics of a vocational program, when applied to any given school or class, may be used for the purpose of estimating relative degrees of efficiency. Ratings based upon the application of these characteristics to (*a*) a vocational agricultural department in a rural high school, and (*b*) an evening trade extension class for adults, are indicated on Diagram No. 12. It is evident that this device is reliable only when it is employed by persons who have had sufficient experience with the aims and objectives of the various schools to enable them to form a reliable judgment in terms of the rating values. It is evident from an inspection of the diagram that program No. 5, according to the ratings given, could be greatly improved in subject matter, in the qualifications of the teacher, and in the methods of instruction, and that the occupational atmosphere and environ-

ment are reasonably satisfactory. The reader will find it an interesting experience to apply this rating device to various schools or classes with which he happens to be familiar.

DIAGRAM No. 12

TEN FUNDAMENTAL CHARACTERISTICS OF AN EFFICIENT VOCATIONAL PROGRAM



A. Instruction in order to be effective with vocational students must be given to *selected groups*.
B. The *subject matter* to be taught must be such as directly *functions in the work* for which the pupil is being trained.
C. *Instructors* must have been occupationally *trained in* the trade or *occupation* they are to teach.
D. *Individual instruction* should be given whenever necessary to the progress of any member of the group.
E. Each *individual* member of the group should be permitted to *progress* as rapidly as his or her ability will permit and promotions should be made at any time on the basis of ability to do the work required.
F. Effective *training* for work can best be given *on* a *real job*.
G. All *subject matter* and training should be *arranged* in the most effective instructional *order of difficulty*.
H. The pupil while being trained should be placed in an *occupational atmosphere* and environment.
I. The instruction and training should be based upon *prevailing occupational standards*.
J. *Repetitive training* in the various operations should be given such as will enable the learner to begin work as an economic asset rather than as an economic liability to his employer.

Programs rated:
No. 1 Vocational Agricultural Department in a Rural High School.
No. 5 Evening Trade Extension Class for Adults.

Standards for Equipment. — Administrators are now giving more and more attention to the cost of vocational education; and for this reason, if for no other, the equipment of a shop or of a room for teaching a related subject should be selected on the basis of certain efficiency factors. To be efficient, the equipment — and by equipment is meant both machine and hand tools — must

be selected so as to enable the instructor to function satisfactorily in his instructional capacity at a minimum expenditure of *time*, *cost*, and *effort*.

The tool that costs the least is not always the most economical tool to buy; while, on the other hand, the most expensive tool may not be any more efficient on the job than one that is less expensive. The problem, therefore, is how to select such tools and equipment as will enable the student to make the best progress, will conserve time and effort, and will require the least expenditure of money. Since these three factors can not be viewed independently, it becomes necessary to set up the characteristics of an efficient equipment against which one may evaluate any situation.

Characteristics of an Efficient Equipment. —

1. The *quality* of the equipment corresponds to the standards set up by the occupation itself.
2. The *quantity* of the various machines and tools is limited to that necessary for efficient instruction.
3. The equipment must *function* in the occupation for which the student is being trained.
4. The *working condition* of equipment and tools must be such as will not retard the learner's progress.
5. The *arrangement* of equipment must correspond to the best practice in the occupation.
6. The *responsibility for the care* of tools and equipment should be placed upon the learner as rapidly as his progress will permit.
7. *Safety precautions and devices* should be provided so as to protect both life and property.

The quality to be included in specifications can best be determined by calling for the standards of the occupation itself. Perhaps no better information as to these standards is available than that which may be secured from competent workmen. Where competitive bids must be received, as is usually the case in public schools, it is desirable to utilize in some way certain commercial tests by which unsatisfactory products may be eliminated. As an example, the Marshall Wells Hardware Co., Duluth, Minn.,

has prepared a series of practical service tests of this character by which it accepts or rejects all hand tools.

The *quantity of tools and equipment* must be such that the student's time is conserved and individual progress is made possible. On the one hand, too many shops have been equipped with more machines and tools than are necessary to meet this condition; while, on the other hand, many shops are under-equipped in point of quantity. Both situations should be avoided: the one, as a matter of economy in the expenditure of public money; the other, as a matter of economy of time on the part of both pupils and teacher. The basic factor by which a happy medium may be " struck " is the probability of the use of each tool, and its cost. Where the probability is low or the cost is high, some doubt should be raised as to a " full kit " for each student. Where the probability is high or the cost is low, the reverse may be true, provided funds are available.

The practice, which is largely a carry-over from manual training, of using miniature or small-sized tools, should be avoided. Only tools that correspond to those found necessary in the occupation itself should be provided. It should be borne in mind that the learner is essentially an apprentice who will one day step out of the school into the trade. If he is to do so as an economic asset to his employer and to advantage to himself, he should know how to work with the real tools of the trade. Much of his training is in developing a sense of touch, the proper grasp of tools, the swing or balance of his body, and the rhythm of motion in performing the operations of the job. A change of tools from " boy size " to " man size " will greatly reduce his initial efficiency.

Finally, both tools and equipment should be kept in a workmanlike condition and should be so arranged in the shop as to reduce physical effort and speed up production. Much discussion has been given to the question of care of tools, tool sharpening, and the placing of the responsibility for the condition of tools. Certainly every apprentice should be taught to care for his tools, and, according to the opinions of many supervisors, he should be taught to sharpen tools as he progresses in their use. The excuse that " he is too young to learn to file saws " or that " he can not learn how " should be answered by saying that if this statement

is correct the apprentice is too young to begin learning the occupation, that he is in the wrong training course, or that he has been the victim of poor teaching. In the above statements it is assumed that he has those personal qualifications that give the beginner a reasonable expectation of success.

Whatever may be the cause, if such a pupil goes out from the course as a sample of its product, both he and the school will be judged as deficient by occupational standards.

Safety precautions are most important. Employers as a rule are more concerned with the value of safety devices, and show more intelligent attitude on all phases of safety work, than is the case with employees.

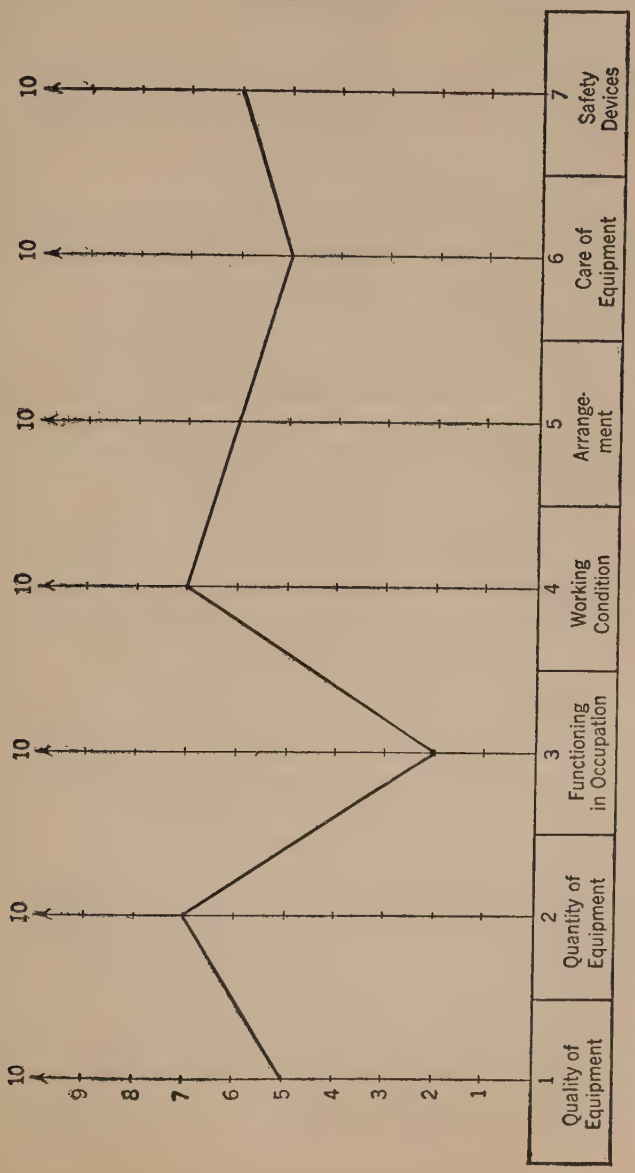
The criticism has been made of administrators, supervisors, and instructors in vocational schools that they attach little importance either to training in safety or to seeing that all proper safety devices are provided in school shops and that students are trained to use them. In fact, the statement has been made by some experts in safety work that a young person is safer from the danger of injury when he is employed in a manufacturing plant than when he is a student in a vocational school.

However that may be, it is unquestionably true that the learner should be taught to work with safety appliances and should be trained in the principles and automatic habits that make for safety and inhibit the tendency to " take a chance," not only with regard to his own safety but with regard to the safety of others, of the " innocent bystander," and of property.

Characteristics of Efficient Equipment. — The curve given in Diagram No. 13, showing the degree of efficiency of the equipment, is based upon the opinion of one of the authors concerning a certain shop organized to teach the carpentry trade. The ratings given are based upon his own experience in the building trades and upon many school situations in which he was responsible for improving the quality of the program. According to the ratings shown, the equipment should be regarded as being about 50 per cent efficient. It is evident from the diagram that the quantity is more nearly satisfactory than the quality, and that the equipment can not be expected to function with any considerable efficiency in giving training for the occupation. It is evident

DIAGRAM No. 13

A Rating Scale for Judging the Efficiency of Any Vocational Equipment



that the condition of the equipment is above the average, but that it still offers room for improvement; that the arrangement should be studied with a view to reorganizing the equipment in accordance with the best practice in the occupation; that the instructor has failed to give the right kind of instruction in the care of tools and in following up his instruction; and that there is ample opportunity for improvement in safety precautions and devices.

The reader will find it an interesting problem to apply the same or similar characteristics to corresponding situations and to make his own evaluations of the efficiency of equipment in keeping with his own experience and judgment.

Using Standards. — As in a number of other cases, standards may be set up or selected, either on the basis of their reliability or on the basis of ease of administration. From the preceding discussion it must be evident that the use of reliable data in the establishment of standards, far from contributing to easy administration, makes more work for the administrator and for the entire staff.

In few cases will the administrator of vocational education find standards already in use which he can afford to apply. As has been pointed out, in many cases there is no known way of setting up standards that can be depended upon as being more reliable than the exercise of judgment based upon experience. If, because of the position in which he finds himself, the administrator has determined to set up standards, he will do well to try out such standards carefully on an experimental basis before adopting them officially for use in his entire vocational program. In most cases, after having thoroughly tried them out and determined their actual values in terms of his objective, he will decide not to use them. Where he finds that reliable standards can be established, he should be very careful to see that those individuals who actually conduct the tests are themselves convinced of the value of the test procedures, whatever they may be, and are thoroughly trained in carrying them out. In general, the development of reliable tests for use in vocational education has scarcely passed beyond the stage of research and experiment. Hence, the great danger to an administrator of vocational education is that he may be swept

away by undue enthusiasm on the part of the research expert, or by current "fads and fashions," and may be led into officially establishing standards, tests, and scoring devices which, at the present stage of their development, are more likely to lower than to promote the efficiency of his program.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Make up a set of ratings, for a school with which you are familiar, in the field of (*a*) home economics, (*b*) vocational agricultural education, (*c*) trade and industrial education, or (*d*) vocational commercial education, which correspond to the ratings given in Diagram No. 12.

2. A certain vocational school has the following characteristics: (1) All shop work is carried on on an exercise basis; (2) admission is based upon the possession of a grammar school diploma; (3) the school is non-coöperative; (4) the equipment is of the manual training rather than of the occupational type; (5) promotion is based upon percentage grade; (6) instructors have never worked at the occupations which they are teaching, but have learned their trades in an institution; and (7) the related subject matter curriculum consists of (*a*) formal mechanical drawing given to all students, (*b*) industrial history, (*c*) algebra, (*d*) plane geometry, (*e*) trigonometry, and (*f*) general descriptive chemistry and physics on a high school laboratory basis. Rate this school on the basis of the ten points given in Diagram No. 12, and give reasons for your rating.

3. If you do not agree with all of the ten efficiency factors given in Diagram No. 12, prepare a similar set and rate the efficiency of the school described above, using the same scheme as suggested in Diagram No. 12.

4. In the same way, rate some school equipment with which you are familiar, and preferably one with which you have been associated, using the seven points given on Diagram No. 13.

5. As an administrator you are called upon to approve or disapprove a part-time apprenticeship program. What factors would you take into consideration in determining upon such approval or disapproval?

6. Which of the two theories as to the functions of a teacher, as given in the text, is, in your opinion, correct? Why?

7. Discuss the following thesis, either *pro* or *con*, as you prefer: "No educational system can be efficient unless in every way it can be quantitatively measured by definite tests and scores in terms of exact standards."

8. Formulate a definition of teaching ability and give reasons for your definition.

9. As you see it, what are the fundamental differences between vocational education and general education as usually carried on, assuming that both types of education are equally efficient in terms of their respective social objectives.

10. Prepare a list of what you consider to be administrative danger points in the use of standards.

11. If possible, make a list of cases, drawn from your own experience, where you have observed that the application of improved standards and tests has either worked an injustice or reduced the efficiency of an educational program, either in general or vocational education.

12. Debate, *pro* or *con*, the statement made in the text that it si impossible relatively to evaluate content incorporated in a specific vocational training program for a given occupation, as functioning or non-functioning.

13. Just why should learners in the following occupations be given a course in mechanical drawing: (1) Machinists, (2) carpenters, (3) dressmakers, (4) milliners, (5) power machine operators, (6) printers, (7) pattern makers, (8) molders, (9) linotype operators, (10) mine bosses, (11) tailors, and (12) painters?

CHAPTER X

PROVIDING INSTRUCTIONAL AND ADMINISTRATIVE MATERIALS

Preliminary. — Like any other educational administrator, an administrator in vocational education has certain responsibilities in connection with the provision of instructional material that is printed or reproduced by some other method. His specific responsibility with respect to such material arises out of two general responsibilities: first, his ultimate responsibility to the superior authority for the social efficiency of the program; and, second, his direct responsibility for the approval of the expenditure of funds. An administrator must, therefore, frequently decide whether certain instructional and administrative materials should or should not be prepared with a view to their subsequent reproduction in quantity.

Factors to be Considered. — In passing upon any plan for the production of " paper " materials, there are certain factors which a good administrator should take into consideration. These factors can be expressed in the form of the following questions:

1. Is the material of a sufficiently usable character already available?
2. Will the proposed material, if prepared, actually increase instructional efficiency?
3. If the material is not already available, and if it will contribute to increased efficiency, can it be prepared in such a way that it can be used in the particular program to which it is intended to contribute?
4. What will be the relative cost of preparing the material as compared with its instructional value?
5. Is the material of temporary or permanent value?

In many cases, materials are already available in a sufficiently satisfactory form to serve the desired purpose. For example, in

many cases, manufacturers' catalogues contain material that can be used under certain conditions in a satisfactory manner. By way of illustration, if it is desired to teach plumbers' apprentices how to read various tables showing quality, size, and prices of plumbing materials and supplies, a jobber's catalogue will serve the purpose as well as will specially prepared material.

A great deal of instructional material has been prepared which has not actually increased instructional efficiency. This has been true, for example, in the case of many job sheets which have been designed to relieve the instructor of all or a large part of his instructional responsibilities. It is, however, often possible to set down on paper certain cautions, directions, or auxiliary information which the instructor would otherwise be obliged to give to each student individually by word of mouth. Wherever such material can be prepared, provided that it actually functions, it becomes a labor-saving device.* In vocational training, particularly in trade and industrial education, in many cases the actual functioning technical content has not yet been set down on paper. Under these conditions it may be desirable to get such content recorded and incorporated into some form of instructional material. In a similar manner, in some cases, certain forms or blanks are useful in guiding the thinking of the learner, and when properly worked out may serve as instructional efficiency devices.

As an example of this latter form of serviceable instructional material, there have been worked out a number of forms for use in the laying out of lessons, for the making of analyses of functioning content, and for the development of progressive courses of instruction. These forms have been found extremely helpful, when properly used, in promoting the objectives in mind.

There is always a danger in the use of printed or otherwise formally organized paper material, since it tends to standardization and offers to the instructor an opportunity to substitute the printed word for the live teacher. Factors of this kind should be given consideration whenever the approval of a textbook or of specially prepared material is under consideration. Here the

* For a sample of such material, see Federal Board Bulletin No. 95 on "Bricklaying" and No. 101 on "An Analysis of the Management of A Corn Growing Enterprise."

administrator must rely largely on the technical knowledge and professional opinion of the supervisor.

It may also be pointed out that, whenever there is any question as to the approval of paper material, textbooks, job sheets, forms, or other material of a similar nature, whether of a permanent, temporary, or recurrent character, the administrator has the further responsibility of discussing each case with the supervisor as his technical expert. He must make the supervisor fully aware of the responsibility imposed upon him for seeing that such material is properly and not improperly used in the actual work of instruction.

Any material that is to be put into the hands of a learner must be so organized and so written that it will be comprehensible to that learner. This involves such questions as the choice of the vocabulary, the use of graphical devices where such a form of presentation is more intelligible to the reader than a verbal explanation, and the recognition of many other group characteristics which naturally vary with the particular character of the group for whose use the material is prepared. Instructional material prepared for the use of a 14 year old boy or girl in the all-day vocational school obviously needs to be radically different in its set-up and in its content from material dealing with the same subject but intended for use in an advanced evening extension course for mature workers.

The Cost of Production and the Value of the Material. — The production of any sort of material costs money, the chief cost item being the value of the time of the individual who prepares the copy. The cost of such time and thought is oftentimes disregarded, there being a failure to recognize the fact that if any given individual puts his time, thought, and effort into the preparation of special material, he is to that extent unable to discharge other responsibilities. Special material, as a rule, can not be prepared successfully in odd fragments of time, as under such circumstances the continuity of thought is continually broken.

The actual cost of reproduction is a relatively small item, although often given major consideration by administrators; yet it should naturally be given due consideration. This being true, it is conceivable that the actual cost of the preparation of certain

kinds of material may amount to more than its instructional value. An administrator faced with the problem of approving or disapproving a plan for the preparation and reproduction of special instructional material should very carefully evaluate the proposition in terms of such factors as have been suggested in the foregoing paragraphs or in terms of corresponding factors which he may prefer to set up for himself.

The Preparation of Material as an Educative Procedure. — In the above discussion it is assumed that the sole objective of the administrator is to see that any funds expended in the preparation or reproduction of special instructional material will directly increase the instructional efficiency of the program, by placing in the hands of the teacher special tools which will enable him to do his teaching job in a more efficient manner.

Apart from this objective, an administrator has certain responsibilities for promoting the professional improvement of members of his staff. He may, therefore, regard the effect of the preparation of certain special material upon any given individual as sufficiently valuable to warrant his encouraging that individual to undertake this task, even if the material itself, when completed, could not qualify for reproduction under the factors described in the foregoing paragraph. A good illustration of a situation of this kind occurs in teacher-training courses where too extensive use is frequently made of content analysis, purely as a device for creating the ability to visualize content. Under these conditions, the analyses so prepared are usually of little or no value as analyses, since they are, and should be, incomplete; but the experience gained in working them out is the reason for requiring their preparation.

There would seem to be no reason why these two objectives can not be efficiently combined. There are relatively few cases where the indirect objective just discussed can not be attained exactly as well through the preparation of material that can qualify under the set of five factors given on page 209. An administrator would not ordinarily feel justified in asking a member of his staff to prepare material that was not worth preparing from the standpoint of its subsequent value to the program. With the great need that exists to-day for the preparation of the right kind

of special instructional material in vocational education, there seems to be no reason why the educational objective could not be attained through the production of material that is really worth using. High-priced labor is too valuable to use for the turning out of a product that is to be thrown into the waste paper basket.

Some Typical Situations. — There are certain typical situations, leading to requests for authority to prepare special instructional material, which the administrator must consider as requiring the application of "discounting factors." Many people have "personal hobbies," and one form of "hobby" is the desire to prepare material just for the sake of preparing it. Other types of individuals have what may be called single-track minds. They feel that even ordinary standardized content must be expressed in their own particular way if it is to be of any service to them or to students following their programs. Where this type of individual replaces one who has already prepared special material, he feels that the job must be done all over again just to suit his own particular notion, although the actual content may not have been changed at all. Another individual suffers from an excess of enthusiasm. Disregarding the available material, he proceeds to create additional material although he is not at all clear as to the particular service which it will render. There is also the type of individual who wants to make a showing. If he can secure approval for the preparation of special material, which he can show, he is indifferent as to whether the material has or has not any real instructional value. The foregoing factors are simply ordinary human characteristics; and, in so far as the administrator knows his individual staff members, he will discount suggestions and recommendations accordingly, although these characteristics actually make for the preparation of desirable material when properly directed.

Separate and apart from these general characteristics, there are two specific situations of a somewhat different character. Certain individuals would rather do anything than teach, because teaching is hard work. They would much rather sit at a desk and work out material on paper than actually to work with a class of students. A somewhat similar situation arises with an instructor of the academic type, who actually thinks that the prepa-

ration of material of this kind is teaching. An experienced administrator will naturally take all of these characteristics into consideration in deciding whether or not any given proposal is worth its cost.

Procedure. — As in the discharge of certain other duties, the administrator can not be assumed to be technically expert in the production of supplementary lesson material. For this technical ability he must rely largely upon the supervisor, just as in many cases the supervisor must rely upon the instructor for technical assistance. As the first step in the procedure, an administrator must, therefore, confer with the supervisor before he is in a position to apply either his evaluating factors or his discounting factors.

A plan having been once approved, the administrator becomes officially responsible for determining upon the method of reproduction. In approving a given method he should again be guided by certain fundamental factors. It is commonly considered that if the material is in the testing or experimental stage, so that there is every probability that its present form will be modified or changed, it should be reproduced by some other method than printing. Conversely, it is commonly assumed that, where there is reason to believe the material to be of a permanent nature, it should be printed, on account of the permanency of printed matter, the reduced cost of a relatively large number of copies, and the small cost of securing additional copies after the type has once been set.

The third step in the procedure is the formal approval of (1) the general plan, (2) the special method of production, and (3) the cost on the basis of an estimate. After the material has been prepared, there would naturally be, under good administrative conditions, a general checking up, and the carrying out of whatever procedure might be necessary actually to secure the reproduction of the prepared material. This might be the issuing of an order to have the material printed, an authorization for having it mimeographed, or possibly merely an order to have it reproduced on a typewriter.

The foregoing statements apply to instructional material of a somewhat formal character, the preparation of which may add to the cost, and which may involve some question of policy from

the educational standpoint. In any educational system, enterprising, resourceful teachers will frequently develop material of an experimental or casual character with the use of reproducing devices which they operate themselves. This is quite common in the case of laboratory instruction and in that of information supplementary to any given text. The production of such material, which is of a casual, temporary, or try-out nature, is far more necessary in vocational education than in general education. An administrator should not concern himself administratively with the preparation of this sort of material. It is entirely technical in its character; it does not add greatly to the financial overhead; and it is not of a permanent character, although it may form the base of permanent material to be ultimately prepared upon a more formal basis.

Some Suggestions for Preparing Instructional Material. — In considering the preparation of instructional material of the character discussed in this chapter, there are certain situations with regard to which the administrator needs to be well informed. Much of the instructional material that is proposed will be immediately related either to the technical content or to that more generally related content which is frequently designated as general vocational content. At the present time there is a great deal of confusion in the minds of many supervisors and instructors as to what constitutes directly functioning technical content, and as to what constitutes general vocational content. Under these conditions there will frequently be presented to the administrator plans for the preparation of material which does not obviously fall within the scope of a true vocational program, or which is based upon objectives that are not true vocational objectives. While an administrator can not be expected to check such matters in detail from a functional administrative standpoint, he can check them to a large extent from the proposed method of securing such content. If he knows that the only reliable method for securing functioning content is to secure it from an occupationally competent group or from an occupationally competent individual, he may measure the reliability of the material by the degree to which this method is proposed as against other methods which may be proposed.

Experience has shown that where instructional material is to be developed from content furnished by an occupationally competent group, the group alone is unable to furnish the content or to organize it for instructional purposes. There will almost invariably be required the service of an educational expert who can draw out this content from the occupationally competent group, and properly organize and classify it for purposes of instruction. Under ordinary conditions it may be assumed that this function will be performed by the supervisor, but in certain cases it may be necessary to employ an expert qualified to perform this drawing out and organizing procedure. Whether or not such an expert is employed, in case the supervisor has not sufficient time at his disposal to discharge this function and at the same time discharge his other duties, the administrator must see to it that provision is made for this expert service.

It may be further suggested here that in many cases certain parts of the work necessary for the preparation of material of this character have already been done. For example, practically all reliable formulation of instructional material is based upon some kind of a classified analysis, whether carried out formally or informally. Analyses of various occupations are available and can be used as starting points for further development of instructional material; and it is therefore entirely unnecessary that such work should be done over again. It is well, therefore, for the administrator to assure himself that there is nothing already in existence which can be utilized in order to start the particular piece of work under consideration somewhere above the zero line.*

Administrative Material. — In addition to providing special instructional material, practically every administrator in vocational education has occasion to prepare, or to direct the preparation of, material which deals largely with administrative policies or details of organization. The preparation of such material, either directly or by authorization, falls strictly within the duties of the administrator and comes within the scope of his technical knowledge, although, in determining its objectives and its prob-

* References to a number of such analyses and other material of the general character of that discussed in this chapter will be found in Appendix A, "A Bibliography of Selected Readings."

able effects on the program, he will often draw upon the technical knowledge of his supervisory staff, and will consider their opinions.

The administrator can always delegate to the supervisor the direct responsibility for the preparation of supplementary instructional material, but he can not delegate a corresponding responsibility for the preparation of administrative material, since he alone will be held responsible by his superior authority for the effects of such material upon the efficiency of the vocational program.

As an indication of the present increasing interest in developing functioning content, there has recently been created a National Committee on Materials of Instruction. This committee was appointed by the Commissioner of Education and is representative of the major educational functions throughout the country. The purpose of the committee is to gather and organize all kinds of materials of instruction suitable for public schools, and to present these materials, without recommendation as to their use, to all schools, each of which will be free to use them or not.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. What factors should be taken into consideration in deciding whether or not a given type of instructional material is desirable for use with a given trade extension class?

2. From some occupation with which you are familiar, select a problem of a technical character, as, for example, laying out a rafter by the use of the steel square in the carpenter's trade, computing a balanced feed ration in dairying, or a corresponding problem in commercial or in home economics education. Using the particular problem which you have selected, prepare lesson material on the following bases:

(*a*) For a group of 14 to 15-year-old boys in the first year of an all-day vocational school.

(*b*) For a group of adult workers in a short unit extension course.

3. What items would you take into consideration in considering the relative cost of the reproduction of an article of five thousand words where one thousand copies are wanted: (*a*) by printing, (*b*) by mimeographing, where the stencils must be cut by the local stenographic service?

4. Make a list of personal characteristics, other than those suggested in the text, which an administrator should take into consideration as discounting factors in passing upon a proposal for the preparation of instructional material.

5. Make a list of publications for which an administrator must assume the entire responsibility.

6. Make a list of the kinds of supplementary instructional material which might be proposed to an administrator.

7. If possible, secure some samples of job sheets. Evaluate them in terms of the four factors given in the text.

8. There comes to an administrator a proposal to prepare certain supplementary instructional material. After a conference with the supervisor he approves the plan. The actual material is to be prepared by certain occupationally competent people. The administrator issues an order accordingly. The material is prepared and put into the hands of the instructors. Later on, it appears that it is not being used. What is the trouble? Is it due to poor administration, and if so, in what way?

CHAPTER XI

EVALUATING THE WORK OF THE SUPERVISOR

Preliminary. — The entire supervisory function is essentially technical in its character. It must, therefore, be carried out through the delegation of authority by the administrator who, nevertheless, must assume the ultimate responsibility for the manner in which the supervisory function is actually discharged. As in all other cases of delegated responsibility, the delegating official can not avoid the duty of evaluating the efficiency with which any group of delegated responsibilities is discharged, in terms of the objective to be attained through the discharge of those special responsibilities.

Whatever may be the basis of such evaluations, in the case of the supervisory function, it is evident that they can not be assumed to be based upon the possession, by the administrator, of any such specifically functioning technical knowledge as forms a part of the professional equipment of the supervisor.

The methods of evaluation can not, therefore, be similar to those that would be employed by an expert workman in passing upon the work of another expert workman upon what might be called a craft basis. Acceptable evidence must be secured in a different way, must be of a different character, and must be evaluated in a different manner. Hence, the administrator, in evaluating the work of the supervisor, must not rely upon his technical ability to pass judgment upon such matters as choice of methods or devices, but must deal with evidence indicating results.

For example, where a supervisor has carried on a certain type of professional improvement work, such as a series of conferences with groups of instructors, no administrator could be expected to decide whether or not the work, as carried on, was technically good. This would call for technical knowledge lying outside of his functional field. Nevertheless, the very fact that such a necessary and desirable activity had been carried on by the supervisor,

and that improved professional morale had resulted from it, might be properly regarded by the administrator as evidence that the supervisory function had been performed in a satisfactory manner. It is in situations of this character that some administrators fail to discriminate between the kind of acceptable evidence that they themselves are competent to evaluate, and informational data that belong to another field of expert service.

This chapter, therefore, discusses the evaluation of the work of the supervisor entirely from the standpoint of the responsibility of the administrator, considered functionally, for forming a correct judgment as to the degree to which the supervisory responsibility is properly discharged.

One means of evaluating the work of a supervisor is by noting his skill in utilizing upgrading factors to offset or to minimize the effect of degrading factors.

Degrading and Upgrading Forces. — Any organization may be regarded as something similar to the human anatomy, which is continually exposed to agencies tending to break it down. In the case of the human anatomy, these agencies may be, on the one hand, exposure, over-indulgence of one kind or another; or, on the other hand, they may be such specific disease-causing agencies as bacteria and other malignant organisms or growths. Over and against these deteriorating agencies, certain upgrading forces have been developed or created in the struggle for existence. For the human anatomy these agencies include various anti-toxins, vaccines, and the accumulated knowledge of the medical profession.

In the same way, in an educational organization, two groups of forces are continually at work. The first group may be designated as degrading forces because they always tend to break down the quality of the work. The second group may be designated as upgrading forces or factors, since their effect is to improve the quality of the work. The situation, at any given time, represents the balance resulting from the interplay of these two groups of forces or factors, and the situation is always in a state of flux. The one group acts negatively, and the other group positively. Some of these forces are suggested in Table No. 19.

The interplay of the forces indicated in Table No. 19, some

TABLE No. 19

DEGRADING AND UPGRADING FORCES

Degrading Forces	Upgrading Forces
1. Undesirable turnover on staff.	1. Education through —
2. Politics.	*a*. Group conferences.
3. Tendency to routine.	*b*. Individual conferences.
4. Ignorance.	*c*. Teachers' institutes.
5. Laziness.	2. Inspection.
6. Jealousy.	3. Constructive criticism.
7. Inertia.	4. Constructive thinking.
8. Selfishness.	5. Planning ahead.
9. Conservatism.	6. Definite programs.
10. Destructive criticism.	7. Good personnel management.
11. Poor administration.	8. Qualified personnel.
12. Unqualified personnel.	9. Desirable changes in personnel.
13. Poor personnel management.	10. Good administration.

of which are degrading and others upgrading, produces a continual flux; and the situation at any given time must, therefore, be a temporary one. Since this is so, it is evident that one value of a supervisor's service may be measured by his ability to utilize the most effective upgrading forces to offset corresponding existing degrading forces.

Relative Value of Upgrading Forces. — On considering the various upgrading forces listed in Table No. 19, it is evident that they have varying theoretical values. By way of illustration, there is indicated in Table No. 20 a rough evaluation of these factors in terms of their probable relative usefulness, on the assumption that the supervisor, when he utilizes any one of them, will be able to utilize it to its full value.

The actual values inserted in the table are purely qualitative. Everyone familiar with supervisory work, however, will agree that the ability to educate is of far more value than the ability to inspect, and that the ability to do constructive thinking and to plan ahead would be generally recognized as of more importance than the ability to set up a definite program, or to take advantage of changes in personnel. With regard to the latter type of ability, it may be said that changes in personnel do not occur frequently, and that there is always a chance that the new incumbent will be no better than his predecessor.

TABLE No. 20

RELATIVE VALUES OF UPGRADING FORCES

Upgrading Forces	Maximum Rating Value	Assigned Value
1. Education through —	20	
a. Group conferences.		
b. Individual conferences.		
c. Teachers' institutes.		
2. Inspection	6	
3. Constructive criticism	12	
4. Constructive thinking	15	
5. Planning ahead	6	
6. Definite programs	6	
7. Good personnel management	15	
8. Qualified personnel	10	
9. Desirable changes in personnel	5	
10. Good administration	5	
Total	100	

Factors Affecting Administrative Judgments. — In actual practice all kinds of situations arise which may affect the ability of the supervisor to make full use, or even to make any use, of various upgrading forces. An administrator must recognize such situations in any evaluations that he may undertake to make. Any of the upgrading forces that a supervisor may utilize to advantage may be offset, or more than offset, by degrading forces over which he has no control. This is illustrated by a case where a supervisor is obliged to deal with a local board of education entirely dominated by political considerations or by purely academic conceptions as to the social functions of an educational program. Under such conditions the supervisor can not be properly criticized for failure to make use of upgrading forces which he can not utilize so long as these conditions continue to exist. As a matter of fact, such a situation calls for administrative rather than supervisory activity.

It frequently happens that a supervisor is obliged to deal with instructors who are otherwise desirable, but who are absolutely immune to any suggestions along the line of professional improvement. Here the efficiency of the supervisor may be evaluated

according to the character of his personnel management, but he can not be fairly criticized for his failure to educate such a self-complacent group out of their attitude.

Again, it may be that the supervisory responsibilities have such a geographical spread that, as long as these conditions exist, it is impossible to utilize certain upgrading forces, or to utilize them at the time that they would best function. Here again, the situation is one calling for administrative action rather than criticism of the supervisor. Such a situation would exist, for example, where a supervisor was responsible for the professional improvement of teachers who must cover a territory the size of the State of Texas, with several hundred isolated teachers located in different communities. Under these conditions, the effective handling of special or individual professional improvement practically becomes almost impossible, and a supervisor should not be rated down if he does but little of this special work.

In a similar manner, financial limitations may come into play and prevent the proper discharge of all supervisory responsibilities. A desirable change in personnel may be impossible, since a more desirable individual can not be secured for the money available. Administrative policies may also affect the use of upgrading forces, as where the policy is to conduct preëmployment teacher training through long-term residential courses, and professional improvement through summer-school courses, and to do this entirely on an academic rating basis. Although the supervisor may know that other types of teacher training can be utilized to advantage as upgrading forces, he is barred from making use of them so long as that administrative policy continues in effect. Whatever may be the value of professional improvement for teachers in service, under such conditions this particular upgrading agency can not be used by the supervisor, at least in any organized way.

Apart from the situations discussed in the foregoing paragraph, every individual has his strong and weak points. By virtue of his personal characteristics, one staff member may be able to make effective use of certain educational methods, such as the conference method, to a much greater extent than another individual. Conversely, another individual may be particularly strong on the

utilization of other upgrading forces, such as personnel management.

Limiting Conditions in Evaluating Supervisory Work. — An administrator must recognize limiting conditions and personal characteristics in evaluating the work of a supervisor. He must consider how far his own administrative work has functioned in creating situations which inhibit the supervisor from making the best use of the technical knowledge and ability that go with his function. Such inhibiting conditions may be due to no fault of the administrator, or, in fact, may be the fault of no one individual. The administrator must also recognize that every individual will perform his specific duties in accordance with his special aptitudes and abilities, and that it is entirely out of the question to expect to secure supervisory ability that is equally strong at all points.

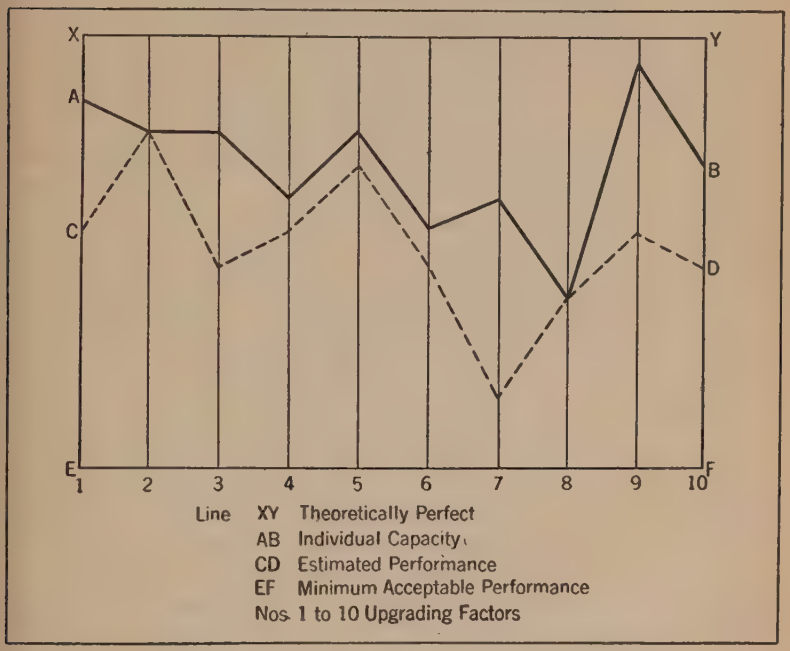
For these reasons, any evaluation of the work of the supervisor, as made by the administrator, must be very general in its character, must be based upon results rather than upon theoretical rating schemes, and must be discounted by all such inhibiting factors as have just been discussed. In all such cases, an administrator should be careful to make certain, first, that he has not personally contributed in any way to the strengthening of any degrading forces, and, second, that he is not himself responsible, and that nobody at that time can be held responsible, for the existence of inhibiting forces which have prevented the supervisor from making the best use of any upgrading agencies which would function efficiently in the given situation.

Utilizing and Balancing Individual Abilities. — One of the best evidences of administrative ability is the power to recognize strong and weak points in staff members, and so to deal with the situation that superior individual abilities of any particular kind are utilized to their maximum. Where this is done, the degrading effects of individual weaknesses are minimized. The fact that different individuals vary in their marked abilities must be faced, since, as already pointed out, there is no such thing as an individual who is 100 per cent perfect. The administrator who sees only the weak points in the different members of his staff, and who has no ability to balance a "plus" against a

"minus," is a very poor administrator, especially if he simply accepts such a situation as normal and makes no attempt to build up, remove, or minimize low points in personal characteristics or to remove, so far as may be humanly possible, all inhibiting factors. Until he has done this he is not in a position to attempt to evaluate supervisory ability on the job.

DIAGRAM No. 14

PERFORMANCE AND JOB DEMANDS



Estimating Supervisory Ability. — In Diagram No. 14 let the broken line *AB* represent the estimated maximum individual capacity of a given individual. Let the dotted broken line *CD* represent the estimate of the degree to which this same individual is utilizing the various upgrading devices given in Table No. 20, page 222, and represented in this diagram by the figures 1 to 10, inclusive. Let the line *XY* represent a theoretical ability of 100 per cent, which no one is able to attain, and let the line *EF* repre-

sent the minimum acceptable performance standard. Low points in the line *CD* may be due to personal characteristics, to mental traits, or to some lack of training. If due to either of the first two causes, these points can practically be regarded as fixed. If due to a lack of training, they can be raised. This situation, however, puts certain new requirements upon the administrator: first, that of discriminating between these two types of low points; and, second, that of seeing that points due to a lack of training are raised through some form of professional improvement.

If this upgrading has been done by the administrator he should seek to utilize special abilities up to their maximum, and to seek, so far as possible, to avoid requiring the exercise of abilities that are relatively low and are not susceptible of improvement. Where this procedure is followed, the administrator is essentially pooling the assets of the members of his staff. Under these conditions, it will often be necessary to encourage a certain amount of specialization.

If the evaluation of the work of a supervisor is based upon the facts indicated above, it becomes a question of rating each individual in terms of what he does as compared with what he is capable of doing. It is evident that under these conditions an absolute comparison of one supervisor with another is impossible, in that the same rating scale can not be used for different individuals. From the standpoint of evaluating the estimated performances of supervisors as compared with their individual capacities, it is also evident that the whole question is one of estimation, and that it can not be subjected to quantitative, mathematical, or statistical treatment. Such a proposition, evidently, will not appeal to an administrator who is looking for easy administration, since it will be necessary for him to rely upon his best judgment and to stand upon his conclusions accordingly.

Comparative Ratings. — In the foregoing discussion, an attempt to make a comparative rating between two or more individuals was not recommended. In many cases, and for various reasons, an administrator may desire, or may be compelled by his superior authority, to administer some rating scheme which involves comparative ratings of two or more staff members. In general, such schemes can be referred to either one of two types.

The first of these is based upon the degree to which different individuals do, in fact, successfully utilize upgrading factors, such as are given in Table No. 20, on page 222. The second scheme is based upon certain predetermined personal qualifications, such as:

1. Accuracy.
2. Judgment.
3. The capacity for leadership.
4. The possession of the functioning information that goes with the job.
5. Tact.
6. Ability in personnel management.
7. Resourcefulness.

The first type is theoretically based upon delivery on the job, or, at least, upon evidence of the use of devices which, when properly used, make for efficient delivery on the job. The second type is theoretically based upon the possession of characteristics that are assumed to bear a definite relation to delivery on the job. Both types deal with indirect acceptable evidence. To that extent, neither is entirely reliable; but, in the present state of our knowledge, perhaps no better procedure can be suggested where, for any reason, the administration of a rating scheme is deemed necessary.

As an example of the practical working out of one such plan in a very large organization, there is inserted here a somewhat detailed description of the rating scheme now in use by the Federal Government under the provisions of the Reclassification Act.

Government Efficiency Ratings. — Under the Reclassification Act of 1923, the Bureau of Efficiency was made responsible for devising a system of efficiency ratings for all Federal employees. The system as devised had to do both with reclassification of positions and with salary adjustments. The following items are included in General Circular No. 4, as issued by the Bureau of Efficiency:

a. Classification grade.
b. Salary rate.
c. Measurable work.
d. Non-measurable work.
e. Quantity of work.
f. Quality of work.
g. Standard quantity.
h. Standard quality.

i. Standard salary.
j. Quantity rating.
k. Quality rating.
l. Efficiency rating.
m. Initial ratings.
n. Revised ratings.
o. Final ratings.
p. Rating officer.
q. Reviewing officer.
r. Board of review.
s. Rating period.
t. Competing employees.

Purpose of Efficiency Ratings.* — The primary purpose of any system of efficiency ratings is to facilitate a precise adjustment between the services rendered by the employee and the salary paid by the employer — to insure full payment for the work done, or, conversely stated, to insure that the work done is commensurate with the salary paid.

In order to accomplish this purpose both salary standards and performance standards must be adopted for each class of employment — that is, rates of compensation must be decided upon which will be accepted as standard pay rates for standard performance on each job or class of jobs.

After the determination of performance standards and salary standards for all classes of work, the salary of the individual worker should be adjusted up or down so that his actual compensation will bear substantially the same relation to the standard compensation that his actual performance bears to standard performance.

The secondary purpose of the efficiency rating system is to encourage effort and industry on the part of the worker, to stimulate his development, and to increase his efficiency and all-round value. While spoken of as the secondary purpose of the ratings, this is, in reality, the fundamental objective sought. The extent to which it is achieved depends wholly upon the accuracy of the ratings as an index of individual efficiency and the disposition of the employer to fix the compensation of workers in conformity therewith. Needless to say, a properly conducted efficiency rating system, in providing machinery whereby excellent performance may be given the recognition it deserves, presents advantages to the employee not less substantial than the value derived by the employer.

Graphic Rating Scale. — The accompanying rating form was devised by the Bureau of Efficiency for the purpose of securing an efficient rating on each Federal employee.† The fifteen service

* Excerpts from General Circular No. 4, U. S. Bureau of Efficiency.

† Including employees of the Board of Education for the District of Columbia.

CLASSIFICATION SYMBOLS		
SERVICE	GRADE	CLASS
Professional	4	2

GRAPHIC RATING SCALE

(SEE INSTRUCTIONS ON REVERSE SIDE OF SHEET)

Efficiency Rating Form

NON-SUPERVISORY ---------- ☑

SUPERVISORY ---------- ☐ (CHECK ONE)

Name Doe John _____ Department _____

(Surname) (Given name) (Initial)

(Bureau) (Division) (Section) (Subsection)

ELEMENT NUMBER	SERVICE ELEMENTS	NOTE: MARK ONLY ON ELEMENTS CHECKED IN LEFT-HAND MARGIN	DO NOT USE SPACE BELOW
☑ 1	Consider accuracy; ability to produce work free from error; ability to detect errors.	100% Highest possible accuracy. / 90% Very careful. / ✓ 80% Careful. No more than reasonable time required for revision. / 50% Careless. Time required for revision greatly excessive. / 0% Practically worthless work.	1020
☐ 2	Consider reliability in the execution of assigned tasks; dependability in following instructions; accuracy of any parts of product appraisable in terms of accuracy.	Greatest possible reliability. / Very reliable. / Reliable. / Doubtful reliability. / Unreliable.	
☐ 3	Consider neatness and orderliness of work.	Greatest possible neatness and orderliness. / Very neat and orderly. / Neat and orderly. / Disorderly. / Slovenly.	
☐ 4	Consider the speed or rapidity with which work is accomplished; the quantity of work produced in a given time; the dispatch with which a task of known difficulty is completed.	Greatest possible rapidity. / Very rapid. / Good speed. / Slow. / Hopelessly slow.	
☑ 5	Consider industry; diligence; attentiveness; energy and application to duties; the degree to which the employee really concentrates on the work at hand.	Greatest possible diligence. / Very diligent. / ✓ Industrious. / Inattentive to work. / Lazy.	1020
☑ 6	Consider knowledge of work; present knowledge of job and of work related to it; specialized	Completely / Unusually / Well / Lacking	

☑	9 Consider cooperativeness; ability to work for and with others; readiness to give new ideas and methods a fair trial; desire to observe and conform with the policies of the management.	Greatest possible cooperativeness.	Very cooperative.	✓ Cooperative.	Difficult to handle.	Obstructive.	820
☑	10 Consider initiative; resourcefulness; success in doing things in new and better ways and in adapting improved methods to his own work; constructive thinking.	Greatest possible originality.	Very resourceful.	Progressive. ✓	Rarely suggests.	Needs detailed instruction	980
☑	11 Consider execution; ability to pursue to the end difficult investigations or assignments.	Completes assignments in shortest possible time.	Completes assignments in unusually short time.	✓ Completes assignments in a reasonable time.	Slow in completing assignments; or does not complete assignments.	Takes inordinately long and accomplishes little.	850
☐	12 Consider organizing ability; success in organizing the work of his section, division, or department, both by delegating authority wisely and by making certain that results are achieved; ability to plan so as to complete tasks on schedule.	Highest possible effectiveness.	Effective under difficult circumstances.	Effective under normal circumstances.	Lacks planning ability.	Inefficient.	
☐	13 Consider leadership; success in winning the cooperation of his subordinates and in welding them into a loyal and effective working unit; decisiveness; energy; self control; tact; courage; fairness in dealing with others.	Most capable and forceful leader possible.	Very capable and forceful leader.	Capable leader.	Fails to command confidence.	Antagonizes subordinates.	
☐	14 Consider success in improving and developing employees by imparting information, developing talent, and arousing ambition; ability to teach; ability to explain matters clearly and comprehensively.	Develops employees of highest possible caliber.	Develops very efficient employees.	Develops competent employees.	Fails to develop employees.	Discourages and misinforms employees.	
☐	15 QUANTITY OF WORK (To be used only where accurate and comprehensive OUTPUT RECORDS are kept.)	Highest possible output.	High output.	Good output.	Low output.	Practically no output.	
☐							

On the whole, do you consider the deportment and attitude of this employee toward his work to be satisfactory? Yes
Answer "Yes" or "No"

Total 8002

Final rating 80.02

Rated by: _____ (Rating officer) (Date)

Reviewed by: _____ (Reviewing officer) (Date)

6—6938

elements upon which various individuals are to be rated are not all used in the case of any one individual. For example, professional grade No. 4, which represents the particular classification for Specialists in Educational Work, calls for a consideration of items on which a rating is indicated, as shown in the accompanying form, facing page 228. The extension noted in the last column is based upon the percentage efficiency, as checked on the graduated scale, and multiplied by a coefficient taken from a table of service elements and weights set up for each particular grade or classification. For a full description of this rating system, the reader is referred to General Circulars Nos. 4, 10, 11, and 12 issued by the Bureau of Efficiency, Washington, D. C.

Rating Officer. — The rating officer, in the practical application of this system of rating, must of necessity be the one who is directly responsible for the work of the employee and who is in intimate touch or contact with the quantity and quality of work on the basis of which the employee is being rated. Under this system the principal difficulty is encountered in comparing the ratings of one officer with those of another in the same organization. Even where the grades of employees are the same or similar, it is almost impossible to secure any uniform system of rating, owing to the entrance of the human element into the problem. In order to overcome, as far as possible, this inequality in ratings, provision is made for a board of review, composed of persons having an intimate working knowledge of the personnel employed. The function of the board of review is to equalize, as far as possible, the ratings due to personal characteristics on the part of different rating officers.

Instructions to Rating Officers. —

1. The rating officer will receive a Graphic Rating Scale for each employee, with captions already filled in and the service elements in which the employee is to be marked indicated by " × " in the boxes in the left-hand margin. All elements thus indicated will be marked, and those only.

2. The rating officer will sort the Rating Scales according to the classes established by the Personnel Classification Board, as indicated in the upper left-hand corner of the sheets. The sheets will then be marked, class by class, those for each class group (as

attorney, scientist, stenographer, etc.) being completed separately, beginning with the lowest class in each group.

3. Before attempting to assign the markings, the rating officer should have clearly in mind the exact meaning of the service elements to be marked. The definitions have been numbered instead of provided with "key words," in order to focus the attention upon each definition *as a whole*, rather than upon a single word or phrase. The rating officer should accept each definition *literally*, and without modification.

4. In assigning the markings to employees in a given class, the rating officer should have in mind reasonable performance standards for the compensation grade in which that class is found. Obviously, where employees are to be marked whose work lies in the same field but in different compensation grades, the standards of performance for the higher grades should be more exacting, except in the first five elements.

5. No part of the definition of element No. 2 refers to the honesty or integrity of the employee. This element has been provided for those cases where a reasonably accurate marking on element No. 1 is not possible.

6. The rating in each element will consist of a check mark (✓) placed at that point on the scale which in the rating officer's judgment accurately represents the employee's standing in that element. The check mark need not be placed directly above one of the descriptive terms on the scale, but may be placed at any intermediate point.

7. Check marks should first be made lightly with pencil. After all employees have been marked, comparisons should be made between the markings of different employees, considering them both by class groups and by grades. The pencil markings may then be altered as desirable, *and the final markings made in black ink.*

8. The markings will refer to the performance of the employee during the six-months period ending May 15 or November 15, as the case may be. The name of an employee rated on a service of less than 90 days should be followed by the notation "Less than 90 days."

9. The question on deportment which follows the scale should

be answered " Yes " or " No." Negative answers to this question should be explained in the space provided above. Rating officers should not allow unsatisfactory conduct to influence their markings, except as it may actually bear upon an employee's standing in some specific service element or elements.

10. All completed Graphic Rating Scales will be signed and dated, and submitted to the reviewing officer.

Instructions to Reviewing Officers. —

1. The reviewing officer will carefully compare the markings assigned by the different rating officers under his supervision, with a view to noting such corrections on the various sheets as may be necessary to secure reasonable uniformity and accuracy in the element markings for the entire group for which he is responsible. This will involve not only the correction of markings in individual cases, but in some instances a general revision upward or downward of the markings assigned by particular rating officers.

2. Corrections made by reviewing officers will be by *red-ink* check mark (✓) on the various element scales. The rating officers' marks will be left undisturbed.

3. After the reviewing officer has reviewed and marked the sheets, he will sign and date all sheets and submit them to the proper board of review.

Final Markings. — The translation of the final markings into percentage is accomplished by multiplying the particular rating given for each service element by a coefficient indicating the relative weight to be attached to that particular element. The products thus obtained are then totalled to secure the final rating. If each service element is marked 100, the total rate equals 10,000. Therefore, the final rating of 80.02, shown on the Efficiency Rating Form, is obtained by dividing the total by 100. It is obvious that where a different group of service elements is to be considered for any particular pay roll job, different coefficients would have to be used for securing the several extensions.

Ratings and Morale. — The effect of any rating scheme upon the morale of the members of an organization is a debatable question. An individual estimate, such as was discussed earlier in this chapter, and was illustrated in Diagram No. 14, page 225, if properly handled, will not interfere with morale. It is entirely

practical for an administrator to take up with any individual his estimate of discrepancies between performance and potential ability, and to handle the matter in such a way that it will result in an improved morale. Where comparative ratings are made, however, all of the dangers that contribute to a breaking down of morale are present to a greater or less extent. The degree to which they function is largely a question of personnel management. The difficulty with comparative ratings is the same as the difficulty experienced in giving marks or grades in school work. It is impossible to take into consideration all of the facts in the formula. No two pay roll jobs make similar demands upon the individuals who hold them, and no two individuals are alike in the way in which they handle similar jobs. When the job differs from such work as is performed by an attendant upon an automatic machine, a rating officer immediately runs into all kinds of factors which can not be included on any rating scheme. Individuals who are rated comparatively are perfectly aware of this fact; and, unless the whole procedure is handled in a very careful manner, the net result of a system of comparative rating is usually a breaking down of the morale. This is not because people object to being rated, but because, where several pay roll jobs are grouped under one classification heading, there are minor variations in the demands of these jobs which no rating system, based upon an arbitrary selection of rating factors, can fully recognize, even where every effort is made, by those responsible for making the ratings, to be perfectly fair and just. Therefore, the individual being rated feels that his rating does not fully represent the true comparative situation as far as he is individually concerned.

Rating Schemes and the Administrator. — It is probably true that there is no administrative function more difficult to discharge than that of operating rating schemes. No rating can obviate the exercise of judgment, and the administrator must be willing to assume responsibility for his judgment. His success or failure in operating any rating scheme will depend very largely upon the belief of those who are subjected to the scheme that the ratings received are based upon a "square deal." Every rating scheme should provide a procedure for an appeal, in order to impress upon the mind of the person being rated the idea that he is getting

a " square deal "; and this idea will be strengthened if the rating official takes sufficient time to form a judgment based upon a careful consideration of all functioning factors. As soon as he allows any rating scheme to become purely mechanical, he is in danger of getting away from reliable standards and fair evaluations, with a corresponding breaking down of morale.

Difficulties in Using Rating Schemes. — The chief difficulty which an administrator will experience in using rating schemes is to minimize such accusations as:

1. " Playing favorites."
2. Having selfish motives.
3. Playing his own game.
4. Being unfair.
5. Exercising poor judgment.
6. Not knowing the facts.
7. Playing politics.
8. Discriminating.
9. Allowing personal likes and dislikes to influence his judgment.

There is no way by which the administrator can avoid laying himself open to such accusations, and he simply must accept them as a part of his job if he must use a rating system. If he can establish a majority opinion that he is fair, and that he is administering the scheme as honestly as he can, this is about all that he can hope to do. It may be added that one of the reasons why many administrators seek to avoid rating schemes is that they desire to avoid such situations, and that they feel that even though they do the best they can they are still to a considerable extent " guessing."

Why a Rating System. — As long as an organization is small, so that the administrator is in frequent personal contact with all members of his staff, it is very doubtful if any comparative rating system is of advantage. As an organization becomes larger, various considerations may make the use of some comparative rating system desirable or necessary. For example, it is quite customary in large city school systems to establish a correlation between salaries and some form of efficiency rating. As yet, the

average administrator in vocational education has not had occasion to deal with an organization of a size which would seem to make an official rating system desirable, especially one developed upon a comparative basis. The danger to the young administrator is that he may be influenced by the popularity, in certain educational circles, of types of standardization of which comparative rating schemes are an example, and may be led to introduce some such scheme under conditions where the undesirable effects upon the morale of his organization will more than offset any advantage secured.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Discuss the relative efficiency of the two plans for comparative ratings described in the text.
2. Make a list of rating factors based upon personal characteristics, which is different from that given in the text.
3. Assign to each of the personal characteristic factors given on page 227 of the text a rating from 1 to 10, and give reasons for your rating.
4. Accepting some of the accusations described in the text as a part of the job, how would you proceed to minimize them?
5. Having as an administrator rated three members of the staff, 70, 75, and 80 on the personal characteristic factors, as given in the text, it comes to your knowledge that you are accused of playing politics. What would you do about it? Why?
6. How would you determine the difference between an individual's capacity and his performance in terms of the ten items given in Table No. 20, page 222?
7. Assume that Diagram No. 14, page 225, represents the situation with regard to a certain member of your staff, and that you take the matter up with him in conference. He claims that he is doing the best he can on all points. How would you deal with the situation?
8. What in your opinion are the factors that should be considered in deciding whether a comparative rating system would do more good than harm in an organization administering vocational education?

CHAPTER XII

RECORDS AND REPORTS

Preliminary. — By virtue of the character of his job, an administrator must depend, to a greater or less extent, upon information about his program furnished to him by others, or, in other words, upon records and reports. Not only is this true with regard to his own immediate need for information, but in many cases he must also approve or disapprove proposals, for securing various kinds of information, made by different members of his staff. In many cases, pressure will be brought to bear upon him to obtain his authorization of the setting up of machinery for securing information from others; and this machinery, if put into operation, may later cause him serious embarrassment. On the one hand, members of the staff tend to magnify the importance of securing information; while, on the other hand, every additional piece of information asked for makes work and trouble for someone else somewhere down the line, and to that extent may make the administrator unpopular. In other words, the closer an individual is to the "firing line," the more he tends to magnify the importance of having at his disposal all kinds of information about the job for which he is responsible; while, at the same time, he feels that if he can secure this information through an administrative order, he himself is personally relieved of all criticism caused by the annoyance, trouble, or difficulty imposed upon others in securing and reporting the information.

It can be set up as a general principle of good administration that no records or reports should be required until the following questions have been answered in the affirmative:

1. Is the information necessary to the success of the program?
2. If necessary to the success of the program, can it be secured in reliable form?
3. If the information is necessary to the success of the program

and can be secured in reliable form, is the value of the information sufficient to justify the cost of securing it?

If all three of these questions can be answered in the affirmative, it then remains to determine:

4. In what form shall the information be presented, as between: (*a*) on a standard form, or (*b*) in the form of a descriptive report which may be either oral or written?
5. What is to be the source of the information?
6. How is the information to be used after it has been secured, as between: (*a*) to be used "as is"; (*b*) to be used as a source material for various classified records, and (*c*) all or parts of the information to be transcribed on other forms?

If the foregoing six questions are carefully considered by every administrator of vocational education, a great deal of the reporting and record keeping which is now being carried on will be either greatly simplified or entirely eliminated.

Two Points of View. — Most administrators can be classified as belonging to one of two types. The first type glories in records and reports, while the second type glories in his program. The administrator of the first type arrives at his state of mind in various ways. He may, by virtue of his past training, or by virtue of his interest, think that he is a research man, and may therefore magnify the importance of records and reports for the sake of having them for use in research work. Another type of individual, who is also in this class, "sees things at night." He always has a vision of some request for information, to which he will not be immediately able to respond. He, therefore, fortifies himself with every conceivable kind of record and report on the chance that some item of information may be asked for at some time, and that his professional reputation may depend upon his being prepared to give this information immediately at any time that it may be called for. Another type of administrator regards records and reports as a means of police control. He feels that he must have, at all times, exact and minute detailed information as to the activities of his subordinates. Finally, there is the type of administrator who regards the making of reports and the keeping of

records as a means of keeping his subordinates busy during certain dull periods.

All individuals in this type or class set the form above the substance. The net result is that they have in their offices all types of records and reports which, in many instances, they have not been able to keep up to date, and which in many other cases are not used at all.

The second type of administrator, who glories in his program, has no use for records or reports, or regards them as matters of subsidiary importance to "work on the job." His attitude is often due to the fact that he is uninformed as to the methods by which he can distinguish between essential and unessential information, and he is frequently of the type which is antipathetic to the attitude of the research man who glories in his reports and recorded data.

The efficient administrator, in this case, as in many others, is the one who knows how to "keep in the middle of the road." He realizes that he needs certain information, and he endeavors to reduce that information to a necessary minimum, to see that the work of securing it is made as easy as possible, and then to see that the information is properly used. In the office of an administrator of this type, there will not be an excessively large number of records or a large amount of detailed reporting, but such records as are kept will be up to date and will be used, and such reports as are made will serve a useful purpose.

Checking up on Records and Reports. — A system of reporting and recording, having once been established, tends to go on indefinitely in the absence of orders to the contrary. Conditions change, and, as a result, information which may have been highly desirable at the time that it was originally called for, may at some future time become entirely unnecessary. Under other conditions, all of the six questions enumerated on page 235 may have been answered in the affirmative, but experience may have later shown that some of them should have been answered in the negative. The administrator should, therefore, periodically consider the character of the records and reports which he requires, and from time to time reapply these six questions to each individual case. Where this procedure is not followed, the list of

required records and reports tends to become cumulative, through a process of addition to meet new needs without any corresponding subtraction of obsolete or unnecessary items.

Types of Records and Reports. — Table No. 21 gives various kinds of typical information classified according to its possible use to an administrator. The items included in this table are typical of the kinds of information for which an administrator may find occasion to answer the six questions given on page 235 before proceeding to secure the information or to authorize anyone else to secure it. It must be understood that the items given in the table are general in character and are inserted merely by way of suggestion and illustration. No single administrator is likely to have occasion to use all of these different kinds of information; and his choice of these items, or of other items of a corresponding type, will naturally depend upon the particular program which he is administering, and the degree to which he is removed from direct contact with the original sources of information. For example, the principal of a high school, having a vocational agricultural department, will need but very little of the information suggested, as compared with the office of the State director of vocational education.

Without regard to the size or character of his administrative job, every administrator has financial responsibilities in that he is responsible for the expenditure of money for specific purposes. In order to discharge this responsibility he must possess the information indicated in Column 1. Practically every administrator of vocational education considers it necessary to be in possession of evidence which indicates the way in which his program is developing. His attitude in this respect will be largely determined by the degree to which his program is in a state of flux and development. The various items of information suggested in Column 3 will probably apply in varying degree for different administrative positions, and probably represent the group of items in which the average administrator is likely to ask for more information than is necessary. The items in Column 4 are obviously of a special and temporary type. They comprise the group that, having once been established, goes on forever, unless discontinued through some periodical checking up.

TABLE No. 21

TYPICAL KINDS OF INFORMATION CLASSIFIED ACCORDING TO NEED

Legal Responsibility for Expenditure of Funds (1)	Justification of Expenditures (2)	Operating (3)	Special Items (4)
1. As to receipts, expenditures, and purposes for which funds are used. 2. As to character of the work.	1. As to enrollment. 2. As to number of schools. 3. As to geographical distribution of schools. 4. As to number of teachers. 5. As to verification of expenditures.	Records and Reports Relating to: 1. Qualifications of personnel. 2. Registration. 3. Attendance. 4. Job cards. 5. Project reports. 6. Discharges. 7. Absences. 8. Agent's reports. 9. Applications for aid. 10. Certificate of award. 11. Employment and follow up. 12. Inspection of schools and classes. 13. Monthly reports. 14. Itineraries. 15. Inventories.	1. Job analyses. 2. Surveys. 3. Lesson plans. 4. Census reports. 5. Community activities. 6. Score cards. 7. Employment opportunity. 8. Questionnaires. 9. Tests.

Forms. — A form is nothing more than a labor-saving device. Where it can be utilized it has the following advantages: (1) it guides thinking; (2) it insures complete information; (3) it saves a certain amount of writing; (4) it provides for the same item of information in the same place; and (5) it is more convenient if the information is to be transcribed or used for reference by others.

As against these advantages, the use of forms has the following disadvantages: (1) a form tends to eliminate originality; (2) it restricts the information to certain specified items; (3) if the work of making out a given form is constantly repeated, it tends to produce the same inaccuracies that any routine work is likely to produce; (4) the making out of a form may become a purely mechanical process; and (5) it promotes the use of abbreviations

which tend to interfere with the use of the information by other people.

Characteristics of a Good Form. — A good form possesses the following characteristics:

1. It deals with statistical matter only.
2. It provides sufficient space for the maximum needs of every item.
3. One form deals with one subject only.
4. It is easily read.
5. It has no cross-references.
6. If the form is to be made a part of a permanent record its size and make-up are such that it can be easily used and filed away in a standard file.

Considerable technique is involved in the setting up of good forms. For example, a form can be so printed that the eye readily notes the various items, or it can be so printed that the user becomes confused and given items are hard to locate when the form is used for reference purposes. Where a form is to be filed and is to be used to any extent by various people, it should be printed on material that is durable enough to make transcription unnecessary. This precaution will avoid the additional cost of transcription, and the additional possibility of errors on the part of the transcriber. In laying out the shape and size of a form, and in determining the material upon which it is to be reproduced and the way in which it is to be reproduced upon that material, attention should be given to the particular method of filing which it is proposed to use. For example, any form to be filed in an ordinary loose-leaf cover requires a wider margin on the left-hand side than if it were to be filed away without any kind of a binding, as in a card catalogue or vertical file.

Where similar forms are to be used in different fields, some kind of color scheme is desirable as an aid in readily distinguishing these different forms from each other, especially when filed away. For the storing of blank forms, it is frequently desirable to adopt a key system which will enable any given form to be readily located and secured.

As an additional precaution, if the administrator wants to secure

a satisfactory form, he must be very careful in laying it out and must then make sure that it is reproduced according to copy. If the copy is turned over to a printer, without any restrictions or precautions, the compositor is likely to set it in type according to printer's standards of form and lay-out rather than from the standpoint of utility. Where the form is to be reproduced by a draftsman, this same difficulty, which is partly due to professional pride on the part of the draftsman, appears in his desire to make a lay-out that is geometrically perfect rather than one based upon the purpose for which it is to be used.

Topical Outlines. — Where reports are to be made, especially if they are to be read or used for reference by several people, it is often a good plan for the administrator to furnish a topical outline which will indicate the order in which the different subjects are to be taken up and the particular items to be covered in the report. It is not considered a good plan to print these items on the sheet of paper that is to be used for the final report, since it is impossible to space all the various items so as to cover all possible contingencies. A better scheme is to provide these topics on a separate card or sheet of paper. The outline should not be given in too great detail, but should only include the major headings which will serve as a reminder in making the report. A topical outline that has been found to serve a very useful purpose in keeping brief memoranda of conferences is here given.

FORM 14

REPORT ON
CONFERENCES

I. PLACE———————————DATE————19——

II. NAMES AND OFFICIAL POSITIONS OF THOSE PRESENT.

III. BY WHOM WAS THE CONFERENCE CALLED AND FOR WHAT PURPOSE?

IV. SUBJECTS DISCUSSED.

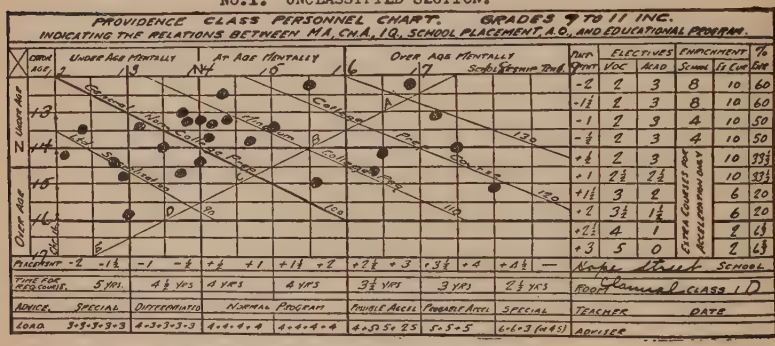
V. AGREEMENTS, UNDERSTANDINGS, RECOMMENDATIONS AND CONCLUSIONS.

The above topical outline was printed on a 6 by 4 sheet of paper for convenience in carrying in a pocket notebook.

Filing and Cataloguing Information. — Much of the information that comes to an administrator requires filing and cataloguing. The particular method to be used depends largely upon the purpose for which the information is collected. For example, where a number of different people have occasion to use the records, a considerable amount of handling will be necessary, and a card catalogue system of some kind should be kept as an index to the records. Use can also frequently be made of graphical methods

DIAGRAM No. 15

CLASS PERSONNEL CHART SHOWING RANGE AND SPREAD FOR UNCLASSIFIED SECTION OF PUPILS



Note wide range in mental and chronological ages and in the corresponding I.Q.

Directions: On heavy lines marked "N" fill in the normal chronological and mental ages of the grade at the beginning of the term; then indicate ages above and below normal. Indicate each pupil in the class by a "●", or a serial number enclosed in a circle, in the position on the chart which corresponds with his mental and chronological ages. The I.Q. is estimated by the position of the "●" between the I.Q. diagonals. The heavy diagonal marked "scholarship tendency" indicates the tendency of the scholarship (letters) of pupils relative to their mental ages for the grade. The educational implications of the mental ages of pupils are indicated at the bottom of the chart; in the last column at the right are indicated the educational implications of their chronological age for the grade. Each unit of school enrichment implies one term of academic work for 5 hours per week. A laboratory course, or three hour subject, counts half credit. Each unit of extra curricular enrichment implies one hour per week on school days.

which make it possible to concentrate a large amount of information in a relatively small space. A good example of the use of such a device is given in Diagram No. 15.

A large amount of information on different systems of filing and

cataloguing may easily be found in various books on the subject. The main problem of the administrator is to select the particular method or device that is adapted to the character of the information which he desires to secure and retain in permanent form.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. What kinds of information would you consider absolutely necessary if you occupied any one of the following positions: (*a*) principal or director of a trade school; (*b*) an assistant superintendent in charge of vocational education in a city of 50,000 inhabitants, the city being of an industrial type; (*c*) a director of vocational education, in a city of 500,000 inhabitants; (*d*) a State director of vocational education; (*e*) the Director of the Federal Board for Vocational Education?

2. What kind of purely statistical information would you consider necessary if you occupied any one of the positions enumerated in (1)?

3. It is desired to secure the following information: the names, addresses, education, and vocational experience of occupationally competent individuals who might be drawn on as instructors for evening classes with adult workers. Would you use a form for recording this information? If so, why?

4. If you would use a form in the above, make up a sample copy for a printer.

5. Criticize the accompanying Forms Nos. 15 and 16, with regard to the questions given on page 235. (Size of original forms 6 by 4.)

Form No. 15

DISCHARGE CARD

1. Last name	2. First name and initial	3. Age when discharged Year.....Month.....
4. Date of discharge	5. Total attendance Years.....Months.....	6. School discharged from
7. Department discharged from	8. Residence before discharge	9. New residence
10. Reason for discharge		11. Progress 12. Effort
13. Employer	14. Kind of work	15. Wages
16. New school	17. Grade	

Remarks:

6. Criticize the following form from the standpoint of the characteristics of a good form as given in the text:

Form No. 16

CENSUS CARD

1. Last Name	2. First name and initial	3. Date of Birth Year.....Month.....Day....		
4. Present Residence	5. School last attended	6. Total attendance Y...M....	7. Date of leaving	8. Grade left

9. Age at leaving Years ...Months.....	10. Reason for leaving	11. Rating

VOCATIONAL SCHOOL PERIOD

12. Date of Entrance	13. School	14. Department	15. Date of leaving	16. New address

SUBSEQUENT PERIOD

17. Date of Record	18. Last Address	19. Record found filed under		
		School	Department	Year

7. If you have had any experience in making out forms or reports, make out a list of items that you consider unnecessary information and that you have been requested to furnish.

8. As an administrator you have been requested by your supervisor to authorize the use of a set of forms on which a student in a teacher-training course records every item with regard to his practice teaching, with regard to what he taught, how he taught it, what his lesson plan was, what methods he used, what success he had, what the comments of the regular instructor were, and what the comments of the critic teacher were. Would you advise the use of forms for this purpose? If so, why; and if not, why not?

9. As an administrator you desire to have on record in your office the total enrollment in ten different vocational schools by years. Would you record this on a form, or use some graphical device? If you recommend a graph or diagram, develop one for this purpose. If you recommend a form, make suitable copy for the printer.

10. Referring to the table giving the number and sex of pupils enrolled in vocational courses in specified types of vocational schools, in the last available annual report of the Federal Board for Vocational Education, check the total enrollment for your own State for the years beginning with 1918 and record these enrollments graphically. Make the same record, using a block diagram. Which is better? Why?

11. Under what circumstances would a form be better than a graph or a

diagram, and under what conditions would a diagram or graph be better than a form? Under what conditions would a diagram be better than a graph?

12. Develop a suitable form for securing and recording the information under any one of the suggested items in Column 3 of Table No. 21.

13. As an administrator, what forms, topical outlines, or instructions would you give to your supervisor for the purpose of reporting on his visit to local schools?

14. Prepare a form to be used by a local community as an application blank for State and Federal aid, keeping in mind the comments and suggestions in the text.

15. What improvements can you suggest on the accompanying Form No. 17, for a monthly report?

Form No. 17

MONTHLY REPORT

Four weeks ending.....for.....School.....Dept.

Report each Department: (House Room) Separately.		Total number hours spent by members on supervised project work.....
Whole Number Pupils		School was in session.....days of.....hours.
Sessions Omitted		Substitute teacher was present.....days.

Visits by State Agents: Write in the names and give dates.

Names	Dates	Time Spent	Names	Dates	Time Spent

Names of Pupils Added			Names of Pupils Lost		
	Resident	Non-Resident		Resident	Non-Resident

16. As an administrator, you have prepared certain forms. During the period in which the forms are in use, on what points will you check in order to improve their character or to decide whether or not to discontinue their use?

CHAPTER XIII

THE ADMINISTRATOR AND LEGISLATION

Preliminary. — In a general way, an administrator has to deal with two rather distinct situations. First, he must act in an executive and judicial capacity with regard to such rules and regulations as may have been established by his immediate superior authority. Second, he must so administer his program that it is operated in accordance with such laws or ordinances as may have been enacted by authorities to which he is not directly and officially responsible. An illustration of the first situation would occur where a board of education had passed a rule making graduation contingent upon the attainment of a general average of 70 per cent throughout the four-year period in high school; or where, in the case of a high school, the board of education had passed a regulation providing that no student would be eligible for participation in extra-curricular activities if he were a member of certain fraternal organizations which had not met all of the requirements of the school authorities. When a case comes up under such regulations, it is usually the duty of an administrator to determine the facts in a judicial capacity and then to impose the penalty in an executive capacity.

In the case of laws and ordinances enacted by legislative bodies, such as State legislatures or city governments, the administrator, strictly speaking, has no legislative, executive, or judicial responsibility. At most, his responsibility is that of a conscientious complaining witness. The case of a parent who refuses to permit his child to attend school, although the age of the child falls within the provisions of a State compulsory school attendance law, is an illustration of this responsibility. Under these circumstances the administrator can not officially determine the facts, act upon the facts in a judicial capacity, or determine or legally enforce the penalty. These functions are vested in the courts and the police authority. In the case of the enforcement of rules and regula-

tions, as discussed above, an administrator by tacit consent usually has a considerable amount of discretionary power which he must exercise in an intelligent and tactful way. Theoretically, however, his responsibility is to enforce the prescribed penalty wherever it appears that the rules and regulations have been broken. Of course, in all such cases, there is always the general provision for an appeal to the immediate superior authority.

In the case of laws and ordinances, the administrator can only bring the offense to the attention of the proper law-enforcement authority, and from that point on the matter is out of his hands. With regard to such laws and ordinances, his position is that of any citizen whose duty is to assist in law enforcement.

In the discharge of his legal and judicial responsibilities, it is necessary that an administrator be in possession of functioning information. Concerning rules and regulations established by his own superior authority, he is presumably informed, and the discharge of his executive and judicial functions thus becomes largely a problem in management. In fact, a good administrator will deal with these problems largely on the theory that he is "*in loco parentis.*"

This chapter, therefore, concerns itself mainly with the functioning information which an administrator in the field of vocational education needs to possess in order to administer his program in such a way as to comply with all laws and ordinances affecting its administration and operation.

Legislation. — The more common forms of legislation with which an administrator will have to deal are indicated in Table No. 22.

It will be noted that the types of legislation indicated in Table No. 22 fall into two different groups. The first group comprises legislation that deals with education in general, and the second group comprises legislation that deals specifically with vocational education. Practically all of the items in the first column under "Schools," in some form or another, are common to all types of secondary education, wherever any form of manual arts, industrial arts, or practical work is carried on. For example, in the case of a junior high school, operating shops, legislation with regard to safety appliances and liabilities for accidents would, in general,

TABLE No. 22

LEGISLATION AFFECTING VOCATIONAL EDUCATION

Schools	Funds	Teachers
1. Liability. (Factory inspection; Workmen's compensation.) 2. Financial. 3. Employment of teachers. 4. Attendance. 5. Safety appliances. 6. Buildings. (Codes and ordinances.) 7. Heating, lighting, and ventilation.	1. Federal. 2. State. 3. Local. 4. Endowments and trust funds.	1. Employment. 2. Certification and licensing. 3. Salaries. 4. Tenure. 5. Removal. 6. Retirement.

apply equally well as in the case of a vocational school. Codes and ordinances applying to buildings and relating to heating, lighting, and ventilation would apply just as much to a vocational school building as to any other school building.

Court Decisions and Legal Opinions. — In the discharge of his responsibilities, an administrator is likely to find that he does not know exactly how he stands with regard to some particular law or piece of legislation. Under these conditions it is customary to secure an opinion from some legal official connected with the State, local, or National Government, such as a city or county attorney or the attorney general. It is well to bear in mind that such an opinion carries no more weight in a court of law than any brief presented by an attorney. It is the business of a court to render a decision on the basis of the law and the evidence presented, and an opinion is not evidence. This fact may be of some importance to a young administrator, since he may feel that an opinion secured from a State or county attorney guarantees a court decision in accordance with the view expressed in the opinion, and a failure to recognize the distinction between the two may at times lead him into embarrassing situations.

Administrators of vocational education may sometimes feel that it is their duty to know the degree to which a school may be

liable in certain contingencies, or the extent to which certain laws may apply, in such cases as the status of an instructor under the Workmen's Compensation Act, or the liability of the school for damages when a pupil is injured in a school shop, either inside or outside of regular school hours. For example, in certain States, State laws prohibit the employment of young persons under the age of 16 on certain types of power-driven machinery. The question has been raised in the past as to whether this law applied to the work of pupils in the school shop where these same machines were used for instructional purposes. In the past, in the field of general education, a great many questions of this kind have arisen with regard to the use of corporal punishment on the part of the teacher. In the same way, a number of questions will arise from the enforcement of the part-time compulsory attendance laws, although the administrator will be confronted with the latter problem only in those States where this type of legislation has been enacted.

Interpreting Legislation. — Legislation is drawn either very specifically or in general terms. As an illustration of the first type, reference is made to certain State legislation which requires full-time attendance on the part of every boy and girl up to the age of 16. A law of this kind requires no interpretation. As an example of the second type, reference is made to a law which prescribes that the State board of education shall annually ascertain whether the funds expended as State aid for vocational education have been expended by the various local communities in accordance with the intent of the act. Such a general statement would open the whole question as to the character of the procedure to be followed. This procedure might range all the way from the acceptance of a sworn statement, made by the proper official representing the local board, to a very careful auditing of the accounts by a representative of the State board. The choice of procedures would be based upon a determination of what was meant by "annually ascertaining." Under these circumstances, different administrative officials might easily make different interpretations of the intent of the legislation.

The Administrator and Legislation. — In all questions relating to legislation, the administrator can only act as an agent of his

superior authority. When acting in this capacity, he may have occasion to deal with any of the following situations:

1. The initiating of new legislation.
2. The modification of existing legislation.
3. The proposed repeal of existing legislation.
4. The continuance of existing legislation.

In all of the above situations the administrator may be in the position of a proponent or of an opponent. In so far as this discussion goes, his position is immaterial. The initiating of new legislation, the modification of existing legislation, and the repeal of existing legislation all involve the carrying through of certain steps in a progressive order. These steps may be summarized as follows:

1. A general idea is developed that something ought or ought not to be done.
2. An organized group agrees to promote the idea.
3. Through the activity of this organized group, public opinion is created, which may be favorable or unfavorable.
4. Through propaganda, education, and discussion, public opinion becomes crystallized.
5. This crystallized public opinion is formulated in terms of its fundamental principles.
6. These fundamental principles are embodied in proposed legislation.
7. The proposed legislation is introduced as a bill into the legislative body.
8. Committee hearings are held.
9. The proponents and the opponents endeavor to bring their arguments informally to the attention of members of the legislative body.
10. The bill as introduced (*a*) is passed, (*b*) is passed in a modified form, or (*c*) fails to pass, or, if it does pass, secures or fails to secure the approval of the chief executive officer, in which event it may be finally passed over his veto.

Steps 1 to 6 involve the exercise of constitutional rights by any

citizen or group of citizens. Step 7 must be carried out according to certain prescribed procedures, and Steps 8, 9, and 10 have for their object the securing of favorable or unfavorable action on the part of legislative bodies. The administrator himself may be concerned with the promotion of the first six steps, or these steps may have been promoted by some other person or by some organization, in which case it becomes his responsibility to assume a favorable or an unfavorable attitude toward the proposed legislation. In the case of continuing legislation he is concerned only with Steps 7 to 10, inclusive.

As an illustration of a situation where an administrative group was responsible for the initiation and carrying through of new legislation, attention is called to various State part-time compulsory attendance laws, and to the various State laws providing for the vocational rehabilitation of disabled civilians. As an illustration of legislation that was initiated by non-administrative groups, the Massachusetts Vocational Education Act is typical. This legislation was initiated by Governor Douglas, who appointed a commission which made a report to the State legislature. Through the coöperation of various non-educational groups the legislation was finally enacted. The same procedure was largely followed in the case of the National Vocational Education Act. Both of these statements are made with full recognition of the fact that many individuals engaged in educational work joined hands with other social groups in promoting both of these pieces of legislation, but they can not, as a group, be regarded as having been primarily responsible for initiating the idea.

From the above illustrations, it is evident that Steps 1 to 6, inclusive, may be carried out in either one of two ways: First, they may be carried out through the activities of a professional group engaged in work which will be affected by the proposed legislation; and, second, they may be carried out by lay groups. An example of the first situation may be found in the history of the legislation initiated by the medical profession to prevent the refilling of certain prescriptions in which various narcotics are component parts. The present National Maternity Act, the National Vocational Education Act, and the National Good Roads Act illustrate legislation of the second type. Each of these

acts was initiated and promoted, through the first six steps, by groups of individuals who had no direct professional interest in their enactment.

The interest which the administrator of vocational education has in these two lines of approach lies in the fact that legislation initiated and promoted by lay bodies, who presumably are disinterested, is more likely to be favorably acted upon. Hence, an administrator will have a much better chance of securing the legislation he desires if he can educate lay bodies to the point where they will initiate and promote the proposal. In enlisting the assistance of lay bodies there is one important advantage and at least one danger. The advantage is that the administrator, as a technical expert, may be checked up by the common-sense ideas of practical people. The principal danger is that he may arouse such a wave of enthusiasm among members of technically uninformed lay bodies that they will secure legislation that will precipitate a situation with which he is unable to deal.

Crystallizing Public Opinion. — The general idea underlying legislative action may originate with an administrator of vocational education or it may be brought to his attention by someone else. In either event it is left for him to decide whether or not the idea is worth carrying out, and to act in accordance with his decision.

Special Legislation. — Practically all vocational education of less than college grade is carried on under the provisions of special legislation. All States now have general educational acts, but, so far as the authors are informed, these general educational acts do not deal with vocational education of less than college grade. It is true that in some States the original special acts dealing with vocational education have been codified with the general educational acts. Hence, an administrator of vocational education is much less concerned with legislation affecting general education than he is with the special legislation affecting vocational education. In order that an administrator may coöperate intelligently with general school groups, it is desirable that he have a knowledge and appreciation of the legislation affecting the general program.

Practically all vocational education of less than college grade is affected by two fundamental pieces of legislation: (1) The

National Vocational Education Act, and (2) one of the State acts complementary thereto. Table No. 23 indicates in a general way the character of this special legislation.

TABLE No. 23

LEGISLATION AFFECTING STATE AND FEDERAL AID TO VOCATIONAL EDUCATION

I Items Affected by Legislation	II National Vocational Education Act Deals with such Matters as:	III State Vocational Education Acts Deal with such Matters as:
1. Financial.	1. Amount, purpose, procedure for securing and limitations, endowments, and gifts.	1. Amount, purpose, procedure for securing, limitations, endowments, and gifts.
2. Employment of teachers.	2. Qualifications of teachers.	2. Qualifications of teachers and certain salary regulations.
3. Employment of staff members.	3. Qualifications of supervisors.	3. Qualifications, duties, and salaries of supervisors.
4. Attendance.	4. Sets minimum age limitations.	4. Conditions of attendance, maximum and minimum age, ability to profit by instruction, and regulations concerning non-resident students.
5. Administration.	5. Provides for State Board of control of not less than three members.	5. Specifies character and powers of State Board and character and power of local boards.
6. Types of schools.	6. Sets up certain general types.	6. Sets up certain general types.
7. Teacher training.	7. Requires and provides certain minimum limitations.	7. Provides for teacher training.

The National Vocational Education Act, so far as it affects administration, is obviously the same for all of the States. State acts vary widely in their degree of detail and in the character of that detail. An administrator must, therefore, be familiar with the National Vocational Education Act and with the various policies and interpretations relating thereto, and must also be

familiar with the particular legislation affecting vocational education in the State in which he is located.

It would be impossible to give here even a résumé of the functioning information with regard to the practical application of the National Vocational Education Act. Anyone can secure information concerning this act from publications issued by the Federal Board for Vocational Education. State vocational education acts vary so widely that no general statement can be made to cover them. Some acts enter into great detail, while others are brief and leave matters of detail to the State Board for Vocational Education.

Sources of Information. — With regard to the specific provisions of State and Federal legislation as indicated in Table No. 23, the reader will find the following references desirable as source material.

I. State Legislation.
   1. The State act of acceptance and other acts supplementary thereto.
   2. The State plan for vocational education.
   3. Administrative bulletins issued by the State Board for Vocational Education.
   4. Bulletin No. 55, Federal Board for Vocational Education.
   5. State compulsory part-time school attendance laws.

II. Federal Legislation. Bulletins of the Federal Board for Vocational Education.
   1. Bulletin No 1. Statement of Policies, including a copy of the National Vocational Education Act.
   2. Bulletin No. 13. Agricultural Education — Organization and Administration.
   3. Bulletin No. 17. Trade and Industrial Education — Organization and Administration.
   4. Bulletin No. 28. Home Economics Education — Organization and Administration.
   5. Bulletin No. 34. Commercial Education — Organization and Administration.
   6. Bulletin No. 57. Industrial Rehabilitation — A Statement of Policies to be Observed in the Administration

of the Industrial Rehabilitation Act, including a copy of the Civilian Vocational Rehabilitation Act.

7. Bulletin No. 77. Handbook of Information for State Officials Coöperating in the Administration of the Vocational Rehabilitation Act.

All of the above bulletins are issued by the Federal Board for Vocational Education and may be obtained either from the board itself or at a nominal price from the Superintendent of Public Documents, Government Printing Office, Washington, D. C., when desired in quantity.

States vary greatly in the degree to which they make available for distribution information with regard to State legislation. In a number of States the State plan has been printed and is available on request. Some States issue organization bulletins, corresponding to the organization bulletins issued by the Federal Board for Vocational Education, for the fields of agriculture, trades and industry, and home economics, while other States do not. In some States, information regarding legislation must be obtained directly from the office of the State board itself or from some member of its staff. Bulletin No. 55, issued by the Federal Board for Vocational Education, contains several large charts summarizing the provisions of the various State compulsory part-time attendance laws.

The foregoing discussion has been based entirely upon the idea of State and Federal aid to vocational education. While considerable vocational education is carried on under private auspices, the public program in practically all cases is concerned with State and Federal aid. In general, State and Federal Aid is made contingent upon public control; and where Federal funds are matched by local funds, the matching must be made from funds also under public control. In practically all cases, State and Federal aid, as disbursed by the State, is contingent upon the expenditure of local funds in advance of the receipt of any aid. The general theory of both State and Federal aid is of a partnership between the State and the local community, on the one hand, and between the State and Federal Government, on the other. The development of the program is entirely in the hands of the

State and the local communities. The Federal Board operates no schools, employs no teachers, and is concerned with a school only in so far as Federal funds are used in connection with its operation under the State plan. All Federal funds come to the local community through the State treasury, by order of the State Board for Vocational Education. Administrators, supervisors, and teachers are all State or local employees and therefore are entirely responsible to the State or local authority which employs them. State and local administrators have no direct responsibilities to the Federal Board for Vocational Education. If a local program is receiving Federal aid the local administrator is responsible to his local board for so administering that program that it conforms to the provisions of the State plan, which the State Board has prepared and submitted to the Federal Board for Vocational Education for its approval.

The above discussion deals with vocational education of less than college grade, and with State and Federal legislation affecting this type of vocational education. In thirty-nine States, a similar situation exists with respect to civilian vocational rehabilitation. This is carried on under Federal and State acts which are similar in many respects to the vocational education acts to which reference has already been made. The administration of civilian vocational rehabilitation, therefore, offers similar problems, and is carried on under the same general conditions as vocational education. The administrator of civilian vocational rehabilitation will probably need certain additional information aside from that outlined in Table No. 23.

The Administrator and New Legislation. — When an administrator has to determine whether or not he will take steps to secure new legislation, the consideration of the general idea, and the making of his decision, are really the crucial points which will affect all subsequent procedures. In making his decision an administrator must give consideration to certain *functioning factors:*

1. Is the proposed legislation constitutional?
2. Is the proposed legislation in accord with the policy of the administrator's superior authority?

3. Is the objective which the proposed legislation is intended to attain desirable from the standpoint of (*a*) the program of the administrator, and (*b*) social welfare?
4. Is the additional legislation necessary in order to attain the objective?
5. Has crystallized public opinion reached such a stage that the proposed legislation will not be regarded as premature?
6. Will the proposed legislation enable the objective to be accomplished?
7. If the legislation is enacted, can it be enforced?

The order given above is the order of consideration. If at any point in the sequence the answer is adverse, the whole proceeding should stop and the administrator should conserve his time by discontinuing promotional activities until the conditions are favorable. As an illustration of the way in which these factors work out in practice, they are applied in Table No. 24 to a number of typical pieces of proposed legislation. The point at which the administrator should drop all further consideration is indicated by the last "×" obtained in successively applying the factors 1 to 7 as given above. In the table, the placing of an × under the successive factors indicates that the factor has been applied to the proposed legislation. Where the answer is adverse, all further consideration ceases.

While the National Child Labor Act actually passed Congress it was later found to be unconstitutional. If proper consideration had been given to this fact, no attempt would have been made to secure legislation in that particular form. Table No. 24 is purely illustrative. Its purpose is to indicate how the steps leading to new legislation, if given careful consideration by an administrator, can be used to terminate a campaign for legislation at some point in the series, and, at least as far as the administrator's own efforts are concerned, to conserve energy and time which otherwise would be wasted.

How a Democracy Works. — The organization of promotional groups, the creation of public opinion through discussion, the dissemination of information, and the possible crystallization of

TABLE No. 24

APPLICATION OF FACTORS TO PROPOSED LEGISLATION

Proposed Legislation	Functioning Factors Given on Page 256–7						
	1	2	3	4	5	6	7
1. National Child Labor Act	×						
2. National Vocational Education Act	×	×	×	×	×	×	×
3. Department of Education Bill	×	×	×	×	×		
4. Proposed Federal aid for training prevocational teachers	×	×					
5. Proposed Federal aid for commercial education	×	×	×	×	×		
6. Proposed State legislation raising the age of full-time school attendance to 18	×	×	×				
7. Proposed legislation establishing national traffic rules	×	×	×	×			
8. Sunday closing or " blue laws "	×	×	×	×	×	×	

public opinion are all parts of the regular procedure through which a democracy expresses itself, or becomes articulate, with regard to any particular matter of public interest.

Formulating Fundamental Principles. — After public opinion has become crystallized, it leaves to some agency the formulation of its opinions into fundamental principles. This duty was performed by the Douglas Commission in Massachusetts, and by the National Commission appointed by President Wilson to deal with Federal aid for vocational education. In the latter case the President's commission formulated the following fundamental principles with regard to National grants of aid:

1. National grants should be given to the States only for those forms of vocational education for which there is an acknowledged widespread need that is not now being met.
2. National grants should be given to the States only for those forms of vocational education where the need is of such

importance to the national welfare as to justify national aid for their encouragement.

3. National grants should be given to the States only for those forms of vocational education where it is clear that, in the absence of such aid, the States could not take the initiative in time to meet the present and growing need.

The Commission made the following statements in its report:

Applying these principles to the different kinds of vocational education, professional, commercial, nautical, agricultural, industrial, and home economics, the Commission, after careful consideration, feels that there is no need at the present time for Federal appropriations to the States for the benefit of the first three. Professional education is already well developed in the States and there is large opportunity for those who want that training.

Although there is a general feeling that the quality of commercial education might be improved, the reports from the country seem to show that there is no great scarcity of trained workers of this kind. The Commission believes that the National Government should give substantial encouragement to commercial education through studies, investigations, and reports, which analyze conditions in commerce and commercial pursuits, and in this way furnish excellent information for use in courses of instruction and methods of teaching commercial subjects.

Under present conditions, in our merchant marine, there seems to be no need for Federal aid, or for Federal appropriations for the development of nautical schools.

It is interesting to note that the President's commission followed some such procedure as was outlined in the seven factors given on page 256, in pointing out that, in their opinion, National aid for nautical, professional, and commercial education was not necessary in order to attain the contemplated objectives, although such aid would be constitutional, would be in accord with the general policy of the Congress, and carried with it a desirable social objective. It is also of interest to observe that the consensus of opinion, at the present time, with regard to the need for promoting vocational commercial education, is not in accord with the report of the commission.

Embodying Fundamental Principles in Proposed Legislation. — Experience has indicated that the embodying of fundamental principles in proposed legislation is not a job for an amateur.

The final draft should be made by an expert. However, in preliminary drafting, certain information will be of value. There are two general theories that are commonly followed in formulating legislation. The first theory is that the bill expressing the intent of proposed legislation should be extremely specific; and the second, that it should be very general and thus allow considerable scope for the exercise of discretion on the part of the administrative agency which is to carry out its provisions. The argument in favor of the first theory is that a law that is very specific in its language lends itself to easy administration. The argument for the second theory is that it enables the executive agency to deal with unexpected situations or developments, and to exercise a large amount of discretionary authority. The tendency of the amateur administrator is to include too many specific details in his formulation. In doing so he runs into two dangers. In the first place, the more specifically any bill is drawn the more numerous will be the attempts to inject amendments and detailed modifications into it as it passes through the various stages of legislative procedure. Wherever this happens, there will be more opportunity for debate and for the injection of controversial points, which will enable the opponents of the measure to delay action or to prevent it by well-known legislative devices.

A second danger is that, after the new law has been enacted, the administrator and his superior authority may find themselves bound by provisions which, under new conditions, do not permit them to attain the desired objective. As a rule, legislative bodies are prone to act favorably on the basis of broad general conceptions, especially in the case of social objectives; and the drawing of a bill in such a way as to embody only broad general conceptions materially increases its chance of enactment into law. An administrator who has gained the reputation of fathering or advocating bills which " miss fire " in practice has not added to his professional standing with the members of legislative bodies.

Introduction and Committee Hearings. — All legislative bodies have definitely established procedures for securing the introduction of proposed legislation and similar procedures for committee hearings on all bills. The theoretical function of a committee hearing is to enable the legislature, through the committee, to

determine whether or not there is a sufficient volume of crystallized public opinion back of the proposed legislation to warrant the entire legislative body in giving serious consideration to the proposal. At these hearings both proponents and opponents of the proposed legislation are given an opportunity to appear before the committee and express their views, and it is frequently necessary for the administrator to represent a group of proponents or opponents at the hearings.

Anyone who is asked or summoned to appear before a legislative committee conducting a hearing on any proposed legislation should be prepared to go through three distinct procedures: (1) a course of preparation, (2) the presentation before the committee, and (3) a checking up process after the hearing is over.

Preparation for a Hearing. — The effect produced at the hearing will be determined largely by the character of the preparatory work of the administrator. Practically all committees rely upon questions as a means of securing their information, and these questions may cover a very wide range. As far as possible, these questions should be anticipated, and the individual should be fully equipped with such prepared information or exhibits as will enable him to answer the questions fully, completely, correctly, and without hesitation. It is highly desirable for the administrator to arrange, wherever possible, to be assisted by supporting expert testimony when he appears before the committee, if he is at all interested in the legislation, as many of the questions asked may fall outside of the field of his expert technical knowledge. As an aid in the final checking up, it is often advisable to arrange for an " observer " to attend the hearing. The average person, when taking part in a formal public hearing, is unable to note the trend of the discussion or what may be called the " pulse " of the committee, nor is he able to note, secure, and retain general impressions. The presence of an individual who has the capacity for doing these things, with whom the administrator can afterwards check up, and who has no other responsibility during the hearing, is often a distinct advantage.

In most legislative hearings it is possible to secure the permission of the chairman to introduce prepared statements into the record. Such statements, if carefully prepared in advance, will conserve

much time in the hearing, which can be more profitably utilized in other ways. This is particularly true in the case of fundamental statements and in supplying statistical information. Illustrative material is much more effective with a committee when prepared in the form of large charts, if these do not contain too much detail, can be easily understood, are not technical in character, and can subsequently be reproduced in the record of the hearing if desired by the committee. Conversely, an oral presentation of a great mass of statistics is extremely poor management, although such statistics are frequently called for by committees and can be incorporated in the records.

Appearing Before the Committee. — The way in which an individual conducts himself at a hearing, especially when he appears in connection with legislation affecting his own program, is extremely important. The effect upon the committee and upon the spectators will be largely determined by the degree to which he succeeds in handling certain points. Naturally, he has two fundamental objectives: first, to educate the members of the committee, who frequently have no very clearly defined notion as to the aims and purposes of the proposed legislation; and, second, to secure a committee report which will be in accordance with his wishes. The success of the administrator in accomplishing these two objectives will depend largely upon his ability to create and leave an impression of his own honesty and sincerity, and to convince his hearers that he has no personal " ax to grind." In order to leave the desired impression, he must also convince the committee that he knows what he is talking about, that he represents a crystallized public opinion, and that the proposed legislation is socially worth while — or that it is not worth while — as the case may be.

He will be more successful in attaining the above objectives if he lets others do most of the talking and limits himself to answering direct questions clearly and concisely, if he does not give the impression that he is trying to " run " the hearing, and if he allots to the best advantage his own time and the time of others whom he has caused to appear.

Editing and Evaluating the Report of the Hearing. — It is customary to have a stenographic report of public hearings and to

place a copy of this report in the hands of the principal administrative officer who has appeared before the committee as the representative of an organization primarily concerned with the proposed legislation, with the request that his portion of the hearing be edited. This is done in order that the report may clearly represent what he and the different members of his group really intended to say, and in order to afford him an opportunity to insert in the record any additional material that the committee may have requested and that he did not have in his possession at the time of the hearing. Since the report of the committee is likely to be very carefully studied by proponents and opponents of the measure, both inside and outside of the legislative body, the editing should be very carefully performed and, wherever possible, all persons who have appeared before the committee should be given an opportunity to review their own statements.

Follow-up Work. — If, under ordinary legislative procedure, the proposed legislation is reported " out of committee," it begins its long journey through the legislative mill. The fact that the measure is in the course of passage through the legislative procedure does not mean that the administrator need give it no further attention. He should keep himself informed at all times as to its status and as to any amendments or modifications that may be proposed during its passage through one legislative chamber and its introduction into the other. In certain instances it is desirable or necessary to have a bill introduced simultaneously in both branches of the legislative body; and under such circumstances its progress in both houses will require careful and constant checking up.

During all of this period there is always a question as to the attitude of the administrator with regard to what is commonly called " lobbying." He may be called upon to furnish information by individual members of the legislative body, and to such requests he should respond. Whenever an administrator goes beyond the above point he should exercise very great care as to what he does and how he does it. Much desirable legislation has been killed by " over-lobbying " on the part of interested parties in the organization which it affected.

Having reached the final stage, the bill may pass through both

branches of the legislative body without modifications; it may pass with modifications; or it may fail entirely. The type of legislation indicated in Table No. 24 rarely if ever passes through the legislative body and becomes a law on its first proposal. It usually requires a period of several years of effort and its reintroduction into succeeding sessions of the legislative body before legislative opinion has crystallized to the extent that it can be passed. For example, the National Vocational Education Act was introduced in 1914 and passed in 1917, and it had been preceded by a series of bills embodying the same ideas before the introduction in 1914 of the bill in its present form.

The administrator who has succeeded in developing a general idea into actual legislation then assumes the responsibility for seeing that the social results which he has claimed for the legislation are actually secured through corresponding benefits to society.

Playing the Game. — In practice, an enterprise is carried on in a democracy only through organized group action. The administrator who is concerned with legislation must work in cooperation with other persons and with various other agencies. These agencies may be individually in favor of the proposal or may be opposed to the proposal. While these various groups and individuals may assent to a given proposition from a general standpoint, there will always be a variety of attitudes and points of view which the person in charge of the proposal must endeavor to consolidate into a composite proposal. In making this composite proposal, he will often find it necessary to give way at certain times and to effect numerous compromises. Throughout this procedure he must at all times recognize the frailties of human nature. The administrator not only has the problem of welding his co-workers into a composite group, but he also has the problem of dealing with opponents, who are also represented by organized groups. Here he has two problems: first, to convert these individuals and groups into proponents; and, second, to secure some desirable modification in their points of view. In all of these negotiations the administrator ought to " play the game " and deal fairly with the opponents of the bill.

The administrator of vocational education has to deal more particularly with agencies that are parties at interest in a voca-

tional program. For the most part these include organizations of employees and of employers, manufacturing associations, and various civic organizations representing the general public.

Personal and Official Protection. — In all of the complex situations arising out of the enthusiasm, the more or less selfish interests, and the ordinary frailties of humanity, the administrator must pursue a path which will not only enable him to accomplish his objective to a reasonable degree, but which will, at the same time, enable him to protect himself officially and personally. He will succeed in securing this protection in proportion as he gains and maintains a reputation based upon the following evaluating factors:

1. He stands for what he believes.
2. He respects confidences reposed in him by others.
3. He " keeps in the middle of the road " between conflicting forces.
4. He is open-minded.
5. He gives everybody a " square deal."
6. He keeps within the limitations of his professional ethics.
7. He protects his superior authority.

Characteristics such as those given above are really evaluating factors which the members of society apply to any individual in a public or private capacity. We are accustomed to bear them in mind in forming an estimate of the general character of anyone who is concerned with the promotion of a social movement.

Making Good on the Job. — Legislation, once secured, merely authorizes or makes possible the doing of a job for which the administrator becomes ultimately responsible under the superior authority. Legislation dealing with education always has as its ultimate objective the rendering of a service to certain social groups. In vocational education this means, in the last analysis, better conservation of the human and natural resources of society. The administrator of vocational education has the responsibility of seeing that, so far as humanly possible, whatever additional funds or facilities are placed at his disposal by legislation are utilized for the attainment of the objective or objectives which the legislative body had in mind when it enacted the legislation. It is a matter of common knowledge to most readers of this book

that the objectives which legislative bodies had in mind when enacting various educational acts have not always been attained, on account of the failure of administrators to carry out the intent of the law. These situations arise either through lack of ability or through the willingness of the administrator or of his superior authority to divert the funds, the facilities, or the exercise of additional authority to the promotion of other objectives which are considered by them as being of greater importance. This substitution of objectives has sometimes been accomplished without the knowledge of the controlling authority, and in other cases at its instigation or with its coöperation, but usually under the leadership of the administrator.

Unfortunately, conditions in the educational field are such that a "school master" sometimes fails to realize that he is a servant of the people, and therefore all too frequently feels that he knows what the people ought to have, better than they do themselves. As long as he is employed in a private capacity this viewpoint may be entirely proper; but when he becomes a public official, he becomes a servant of the people, and it is his duty to carry out their wishes as expressed in organized legislation. Whenever he finds himself in a position where he can not do this conscientiously and to the best of his ability, he should ask to be relieved of the responsibility.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Legislation is proposed which will afford additional funds for trade and industrial education and particularly with the education of apprentices. The legislation proposed has the approval both of organized labor and of employers' organizations. Employers' organizations insist that the control of the number of apprentices and the character of training shall be vested in an apprenticeship committee composed entirely of employers. Organized labor, on the other hand, insists that the apprenticeship committee shall be composed of representatives of employers, of labor, and of the public school program. As the administrator of vocational education you have arranged a conference between representatives of both organizations. (*a*) What points would you anticipate? (*b*) What preparation would you make to meet these points? (*c*) What would be your official position as between these two parties? (*d*) In this particular instance, which side, if any, would you favor? Why?

2. If you believed that either one of the above propositions was the better

proposition, what points, *pro* and *con*, would you formulate as a possible basis for a compromise between these two groups?

3. As an administrator of vocational education you are to appear before a legislative committee at a hearing on a bill proposing to raise the age of full-time compulsory school attendance to 18. By direction of your superior authority you are an opponent of the proposal. (*a*) What questions would you anticipate? (*b*) What points would you include in a statement to be incorporated in the record?

4. In connection with the above hearing, you desire to utilize the services of certain individuals who have special technical knowledge. Make a list of such possible individuals and state their function.

5. Assume that the above list of persons includes the chairman of your board, a member of your staff having supervisory functions in trade and industrial education, and the chairman of the educational committee of a local city club, all of whom are known to be opposed to the legislation. What preliminary steps would you take to insure that each of these individuals would perform his particular function to the best advantage at the hearing?

6. During the progress of the hearing, a proponent of the legislation referred to in Question 3 makes the statement that the prosperity of the country depends upon the full-time education of every youth up to the age of 18. The chairman of the legislative committee asks you to state your opinion on this statement. You have not anticipated this question. Would you (*a*) request permission to prepare a statement giving your opinion for insertion in the record, (*b*) answer the question off-hand, or (*c*) refer it to one of the other individuals mentioned in Question 5? If so, which one, and why?

7. As an administrator of vocational education you are associated with a group who desire to promote legislation providing specific appropriations for the development of part-time apprenticeship training in agriculture, in cooperation with large agricultural corporations. The work of drafting a bill has been delegated to you. Formulate a draft of a bill and state your reasons for the particular form in which you set up its provisions.

8. What information would you require in appearing as a proponent of the above measure at a hearing before a legislative committee?

9. After the committee hearings have been held, you are asked by a personal acquaintance who is a member of the legislative body to discuss the proposition with him. Should you do so? What limitations, if any, would you put upon the conversation? Would you also consider yourself justified in attempting to secure an interview with another member of the legislative body with whom you were not acquainted, for the purpose of advocating the passage of the bill? Give your reasons, *pro* and *con*.

10. Select some particular example of legislation affecting vocational education with the development of which you are familiar or with regard to which you can secure information. Prepare a brief statement covering the ten steps in initiating new legislation, given on page 250, outlining how these steps were carried out in practice.

CHAPTER XIV

PLANS FOR VOCATIONAL EDUCATION

Preliminary. — In the broad sense of the word, *a plan is a statement showing how something is to be done.* It is immaterial whether the statement is made on paper or even whether it is actually expressed in words at all. According to the above definition, a plan involves two fundamental ideas: (1) the setting up of an objective, and (2) the formulation of some idea as to how the objective is to be attained. Such a formulation may range all the way from an extremely general statement to a very specific statement, according to the amount of detail required.

Individuals and Coöperative Planning. — In setting up a plan, without regard to the degree of detail embodied therein, either of two general situations may be met. In the first situation an individual or organization makes an independent plan, while in the second situation the plan is made in coöperation with other individuals or with other agencies. Some illustrations of these two different kinds of plans are given in Table No. 25.

Such proposals or plans as are indicated in the left-hand column of Table No. 25 may be altered, modified, or abandoned entirely at the discretion of the individuals or independent organizations responsible for them. An endowed institution, like Harvard College, could establish a plan for a department of education, could modify the plan, and could even abandon it, without at any time affecting any interest other than its own. A professional promoter engaged in raising funds by popular subscription can, in the same way, change his plans, abandon them, or modify them as he sees fit.

An entirely different situation exists when consideration is being given to plans which involve the coöperation of others. Since the plan involves the interest of more than one individual or group, as long as it is in existence, or is under consideration, it can be modified or abandoned only by the common consent of all

TABLE No. 25

Two Situations with Regard to Plans

Individual Plan	Coöperative Plan
1. Proposal to establish a junior high school.	1. Proposal of a community to organize and conduct a State-aided vocational school.
2. Proposal to establish an endowed vocational school.	2. Proposal to establish a junior college, which is to be accredited by the State university.
3. A planned itinerary.	3. Proposal of a State college to train teachers of vocational agriculture and home economics in coöperation with the State Board for Vocational Education.
4. Proposal to establish an apprenticeship training program by an industry.	4. Proposal to establish an apprenticeship program in coöperation with employers, labor, and public schools.
5. Proposal to raise an endowment fund for any given purpose.	5. A State plan for coöperation between a State Board for Vocational Education and the Federal Board for Vocational Education.

interested parties. A man in business by himself can do as he pleases at his own risk, but if he is a member of a partnership his actions affect the interests of his partners, and this fact is recognized in law.

The same general statement applies equally well to the degree of detail which is necessary in the formulation of a plan of any kind. An individual, planning entirely as such, can develop his plan to any degree of detail which he deems necessary, and can also make his plan as elastic as he pleases. In the case of cooperative plans, however, the very fact that there are two or more parties in interest, of necessity makes the plan more rigid. Such a plan, in general, requires a greater degree of detail in order that the ideas of all parties may be represented, and that the cooperating parties who have responsibilities in connection with

its execution may clearly understand their respective responsibilities.

Why Have a Plan? — In all the affairs of life, two types of individuals are recognized. One type plans in advance; the other type is an opportunist. The one who plans in advance may not necessarily adhere to his original plan. He may modify it from time to time, or even abandon it and substitute a new plan; but, in general, he always has an idea not only of where he wants to go, but also as to how he expects, or at least hopes, to get there. The second type of individual may, of course, know where he wants to go, but he may trust to luck and to opportunity to get there.

Illustrations of the two methods of undertaking the job are afforded by two types of travelers. Every now and then there appears in the newspapers a story of some man who started to travel from one point to another, for example, from Boston to San Francisco. The story usually relates how he was given a "lift" by passing motorists, how he walked for certain distances, how he "stole a ride" on a freight train for part of the distance, how he tarried in some localities for a period of two or three weeks, working to raise money for necessary expenses in order that he could make another lap on his journey, and how he finally arrived at San Francisco. During all this period he had an objective in that he wanted to go from Boston to San Francisco, but he had no definite plan. He thought that he might perhaps be able to get "lifts" from passing motorists somewhere along the line, or that he might be able to earn money at some point in the journey for the payment of railroad fare; but the whole plan was vague, indefinite, and left entirely to chance, the only clear point being the objective.

As an example of the other type of individual, reference may be made to the experienced commercial traveler, who lays out his itinerary in advance, selects his means of transportation, purchases a ticket, and barring unexpected accidents, carries his program through essentially as planned.

An administrator of vocational education is obviously much less likely to carry through a program as originally planned than is an administrator of more standardized types of education. Nevertheless, there are advantages in having a plan, even if that

plan must be subsequently modified or abandoned. As a matter of fact, the chief danger that confronts the administrator of vocational education is that he may hesitate or fail to modify his plan to meet changing conditions in a program which is, and probably always will be, in a state of flux.

Even under these conditions, the formulation of a plan is of value for the following reasons:

First, the preparation of a plan forces a relative evaluation of ways and means. If such an evaluation had been carefully made in all cases that have occurred during the last ten years, many of the present-day local programs of vocational education would be far more efficient socially than they are at present. As an illustration of this statement, the failure to appreciate the relative importance of vocational educational service of a preëmployment type and that of an occupational extension type has resulted in many cases in the organization of programs devoted almost exclusively to the preëmployment training of youth, although *it is now realized that the greatest job in vocational education is to provide adequate educational service for those who have already gone to work.*

Second, an important advantage of formulating a plan is that it gives the administrator something definite to talk about in any discussions or presentations with which he may be concerned or into which he may enter. This is especially true where he has occasion to appear before a group of practical-minded people with an idea which he wishes them to indorse. Under such conditions he will very soon be asked how he proposes to carry the idea out in practice; and if he is unable to answer the question, and to answer it in considerable detail, he is not very likely to secure an indorsement of this proposal. This may be one of the reasons why a number of administrators have not been able to succeed as well as they would like in securing the coöperation of parties in interest in establishing part-time coöperative schools or classes.

Plans for Individual Work. — An administrator not only must make plans for his entire program, but he must frequently ask for individual plans from members of his staff. In either case these plans serve as a means of checking up and of determining, in a general way, where the whole program stands.

The special purposes served by plans worked out under co-

operative conditions have already been indicated. Under these conditions, it is almost impossible to make any kind of satisfactory coöperative arrangement, without the formulation of detailed plans rather carefully worked out. This is true, for example, in working out a coöperative plan for a week-about school based on the Schneider plan.

General Characteristics of Any Vocational Education Plan. — Any plan for the carrying out of a program in vocational education, from the standpoint of the administrator, should possess certain general characteristics which may be summarized as follows:

1. The general objectives should be clearly stated.
2. The superior authority should be specified.
3. The qualifications and duties of the operating staff should be specified.
4. The types of educational organizations to be utilized should be specified.
5. The procedure for securing and using funds should be specified.

In proportion as these five characteristics appear in such detail as the special situation requires, any plan for a vocational education program may be considered as essentially adequate.

The following is an illustration of such a plan in an elementary form: (1) The objective is to operate a county program of vocational agricultural education of less than college grade, in cooperation with the State board for vocational education; (2) the superior authority is the county board of education; (3) the operating staff consists of (*a*) a director of vocational education, (*b*) heads of various departments, and (*c*) a certain number of agriculturally trained instructors in charge of the program; (4) the type of organization is a county agricultural school, (5) public funds are to be provided as follows: (*a*) the salary of the director to be paid from county funds, prorated in terms of his responsibility for other programs, (*b*) the salary of the heads of departments to be paid from county funds, and (*c*) all operating expenses, including the salary of the teacher, to be paid from county funds; and (6) the county board of education is to be reimbursed

one-half from State and Federal funds for the salaries paid to the director and teaching staff, and is to be reimbursed one-fourth from State funds for funds expended for maintenance.

State Plans. — It is a matter of general knowledge that, under the coöperative relations established between the States and the Federal Government, under the National Vocational Education Act and the various State acts complementary thereto, each State prepares a plan which is submitted to the Federal Board for Vocational Education for approval. This procedure has resulted in the working out of very satisfactory plans for the operation of cooperative vocational education programs. The working out of this procedure in practice has resulted in plans in which there has probably been secured the most satisfactory balance between too general specifications on the one hand and too detailed specifications on the other. In other words, these plans may be regarded as having a proper balance between the two extremes.

State plans are quite properly drawn in accordance with the special occupational conditions which exist in the particular State by which the plan is prepared. Some plans enter into greater detail than others. As a fair sample of a plan that enters into moderate detail and therefore fits very well into the discussion, there has been inserted a portion of the present plan of the State of Nebraska. The portion inserted covers (1) administration and supervision, (2) general conditions, and (3) agricultural education. The corresponding sections dealing with trade and industrial education and with home economics education, being essentially similar in character, so far as characteristics are concerned, to the part relating to agricultural education, have been omitted in order to save space.

NEBRASKA STATE PLAN
1922–27

I. ADMINISTRATION AND SUPERVISION

A. GENERAL DIRECTION

The provisions of the Smith-Hughes Act as passed by the 64th Congress known as Public Document No. 347, were accepted by the Legislature of the State of Nebraska and approved by

the Governor on the 25th day of April, 1917, in House Roll No. 800. The State Board for Vocational Education consists of the Dean of the College of Agriculture, one woman appointed by the Governor for a term of three years, and the State Superintendent of Public Instruction. The Board selects one of its members as Chairman. The State Treasurer is Custodian of Funds. The State Superintendent is Secretary of the Board.

1. State Superintendent of Public Instruction is the Executive Officer of the Board.
2. The general administration of all funds is placed in the hands of the State Director of Vocational Education, whose time is devoted exclusively to the general direction of agricultural, trade and industrial, home economics education, teacher-training and vocational rehabilitation. Not more than one-third of his time is given to vocational rehabilitation.

Additional Directional Duties

a. Outlining policies to present to the State Board.
b. Preparing State plans (with assistance of supervisors).
c. Directing the promotion of vocational education.
d. Medium between State and Federal Boards.
e. Medium between State and Local School Boards.
f. Directing work of vocational staff.
g. Preparing forms for reports of vocational schools and teacher-training classes.
h. Recommending schools and classes to State Board for approval and reimbursement.
i. Bringing together all parties interested in vocational education to the support of a State program.
j. Educating the State as to the meaning of vocational education.

B. AGRICULTURAL EDUCATION

A State supervisor of agricultural education on full time is employed. Such assistant supervisors as the development of the work requires will be provided.

The salary of the supervisor, the traveling and other expenses shall be paid from State and Federal funds available for this purpose, provided that not more than 15 per cent of the teacher-training fund be used for supervision in agriculture.

C. INDUSTRIAL EDUCATION

A State supervisor of industrial education is employed on full time and an assistant supervisor on part-time. Such additional assistant supervisors as may be required will be employed. The amount of time devoted to the work by the assistant supervisors will depend upon the development of the work.

The salaries of the supervisor and his assistants, their traveling and other expenses shall be paid from State and Federal funds available for this purpose. Not more than 15 per cent of the teacher-training funds will be used for the maintenance of supervision in trade and industrial education and for training of teachers in service by the supervisor and his assistants.

D. HOME ECONOMICS EDUCATION

A State supervisor of home economics education for part-time and evening schools, and a State supervisor for day schools are employed. When the need arises, additional supervision will be provided.

The salaries of the supervisors and assistants, their traveling expenses and other expenses shall be paid from State funds and from Federal funds available for this purpose. At no time will more than 15 per cent of the teacher-training fund be used for supervision in home economics.

An additional part of the salary of the supervisor of part-time and evening classes shall be paid from Federal and State funds available for teacher training, in proportion to the amount of time devoted to the training of teachers of part-time and evening classes.

E. TEACHER TRAINING

The training of all teachers of vocational subjects shall be under the supervision and control of the State Board. Detailed plans are outlined in these State Plans under " teacher training."

II. GENERAL CONDITIONS

The general conditions which govern reimbursement from Federal funds to schools are as follows:

A. The school must be under public supervision or control.
B. The controlling purpose of instruction must be to fit the student for useful employment.
C. The instruction must be of less than college grade.
D. The instruction must be designed to meet the needs of persons over 14 years of age who have already entered

upon or who are preparing to enter upon the work of the farm, trade, or the home.

E. Every dollar of Federal funds must be matched by a dollar of State or local money, or both.

F. Reimbursement to schools from Federal funds will be made only for:

1. Salaries of teachers and supervisors of agricultural education who are properly qualified under the standards set up by the State Board and in accordance with the terms of the Smith-Hughes Act.
2. Salaries of teachers of trade, home economics, and industrial education who are properly qualified as stated in 1. above.
3. Maintenance of teacher training for vocational teachers according to standards set up by the State Board in these State Plans.

Note. — Maintenance will not include such items as buildings, etc., that are prohibited under Section 17 of the National Vocational Education Act.

III. AGRICULTURAL EDUCATION

A. State Supervision of Agricultural Education

1. qualifications of supervisor

a. The supervisor shall be a graduate of a standard four-year course in agriculture, which course shall include at least fifty hours of technical agriculture and fifteen hours of professional subjects.

b. The supervisor shall have had at least two years of practical farm experience. Preferably he should be farm reared. He shall also have had at least two years' experience in teaching agricultural subjects or directing a system of agricultural instruction.

c. The supervisor shall be at least 25 years of age and possess such personal qualities as will indicate leadership and ability to accomplish the work involved in the development and supervision of a program of agricultural education.

2. duties of the supervisor

a. Promotional

1. Supervision of schools or classes receiving Federal and State funds for salaries of teachers or supervisors of agricultural subjects.

2. Supervision of schools or classes that are now teaching agriculture and assisting them in raising their standards to meet the approval of the State and Federal Boards.
3. Promotion of agricultural education through the preparation of outlines of work, free bulletins and of articles in papers, etc., and assisting in establishing schools or classes throughout the State.

b. Inspectional

1. The supervisor will inspect each school before reimbursement is made and on the basis of these visits will recommend to the State Director the amount of reimbursement to which the school is entitled.

c. Instructional

1. Holding conferences of teachers engaged in the teaching of agricultural subjects.
2. Supervision of teacher training in agriculture.
3. Training teachers in service by special conference, correspondence, publications, and personal inspection of work done.

B. KIND OF SCHOOLS

1. DEPARTMENTS OF VOCATIONAL AGRICULTURE IN REGULAR DAY SCHOOLS

a. Plant and equipment. High schools organizing departments of vocational agriculture shall provide:

1. An agricultural room, which shall be fitted up primarily for instruction in vocational agriculture, and suitably and adequately equipped for library, lectures, recitations, demonstrations, supervised study, and laboratory.
2. A farm work shop, independent of the regular "manual training" shop and which must be adequate for the teaching of ordinary repair and construction work, and a study of the machinery and equipment generally found on the farms of the community.

b. Minimum for maintenance. For departments of vocational agriculture in high schools the school shall provide the department with a general maintenance fund of at least $5 per student per annum.

c. Courses of study.

1. Schools shall maintain a course from two to four years in length. Each student shall devote an aver-

age of one-half day (180 minutes) per day to instruction in vocational agriculture. Three approved periods, or a total of not less than 120 minutes may meet the half-day requirement. It is then assumed that the student devotes the remainder of the 180 minutes to supervised practical work.

(*a*) The remainder of the day is available for a study of non-vocational subject matter, as outlined by the local school.

2. Each student shall do at least six months supervised practical work as required by the Smith-Hughes Act.
3. The purpose of the instruction shall be to prepare the student to enter the vocation of farming.
4. None but *bona fide* students of vocational agriculture may be admitted to classes in vocational agriculture.
   (*a*) A *bona fide* vocational agricultural student is one who does the agriculture, farm shop, and related home project work.
5. The following courses are proposed:

First Year —	*Second Year* —
Livestock production.	Crops production.
Farm shop work.	Farm shop work.
Supervised home projects.	Supervised home projects.
Third Year —	*Fourth Year* —
Choose from the following:	The business of farming and rural life to include:
1. Poultry production.	1. Farm organization.
2. Dairy production.	2. Farm accounts.
3. Horticulture.	3. Marketing farm products.
4. Soils management.	4. Rural sociology.
5. Other special course.	Farm accounting and Farm management survey.
Farm shop. A course in agricultural engineering to include: Machinery, motors, automobiles and tractors.	Farm accounting project (Start January 1 of student's third year).
Supervised home project.	

Note. — Schools with only three-year courses should offer the business of farming and rural life in the third year.

d. Methods of instruction — The methods of instruction shall combine supervised study, laboratory demonstra-

tions, recitations, and field trips, supplemented by individual practicums and home projects. The development shall be from the standpoint of productive farming and not from that of scientific investigation.

e. Qualifications of teachers.

1. Educational and professional preparation — The teacher shall be a graduate of a four-year agricultural course in a standard agricultural college. He must meet the State requirements for professional credit in educational courses. He should have such preparation in farm shop work as will acquaint him with the shop work as outlined by the State department.
2. Farm experience — He must have had at least two years of practical farm experience. Preferably he should have been reared on the farm.
3. Character — He must be able through his character, personality, and farm knowledge and experience to command the respect of the community.
4. Term of employment — The teacher shall be employed the year around. The local school district will pay his salary each month and be reimbursed from Federal and State funds for a portion of the salary paid for time devoted to vocational work. The teacher's contract with the school district must make provision for the farm practical work and home projects of students.

f. Qualifications and duties of supervisors.
(See III-A-1)

g. Plans for six months supervised practical work.

1. Plans for at least six months practical work under the supervision of the teacher of agriculture and with the coöperation of the parent shall include:

   a. A home project, which shall consist of a farm enterprise, on which books are kept, inventories taken, and final statements made and undertaken by the student with full responsibility on his part for both financing the project and doing the work.

   b. Individual practicums, which shall consist of practice in particular farm jobs to develop skill and efficiency in farm operations.

   c. General farm work. Farm boys are naturally doing many jobs about the home farm, and an effort will be made to so organize this general work as to make it supplement the student's agri-

cultural instruction. Town and city boys will be encouraged to accept employment on the farm during the vacation months.

2. EVENING SCHOOLS

a. Plant and equipment. (See B, 3a)
b. Minimum for maintenance. (See B, 3*b*)
c. Course of study. (See B, 3*c*)
d. Methods of instruction. (See B, 3*d*)
e. Qualifications of teachers. (See B, 3*e*)
f. Qualifications of supervisors. (See B, 3*f*)
g. Plans for at least six months supervised practical work. (See B, 3*g*)

3. PART-TIME SCHOOLS

a. Plant and equipment. Where part-time classes are organized such room and equipment as the courses require shall be provided.
b. Minimum for maintenance. For part-time classes provision shall be made for a general maintenance fund, the amount to be determined by the nature of the courses offered.
c. Course of study.
1. The length of the course will be determined by the local conditions and demands but shall not be less than two weeks with at least ten periods, the minimum time for each period being one hour.
2. The purpose of such course shall be to improve the student in his daily employment as a farmer.
3. Each course shall be organized to meet the needs of the adult farmer. The minimum age entrance shall be sixteen.
4. Each student shall meet the requirements of the Smith-Hughes Act as regards supervised practical work.
(*a*) Unit courses should be used as a basis of instruction. Suggested units are:
(1) Rural economics
(*a*) Farm accounts
(*b*) Marketing
(*c*) Farm organization
(*d*) Rural sociology
(2) Farm motors, automobiles, and tractors.
(3) Farm woodwork, repair, and construction.
(4) Problems of crops production.

d. Methods of instruction — The methods of instruction shall be demonstration, recitation, laboratory, practical work, lecture, and visual. The purpose of the work is to promote better farm practice.

e. Qualifications of teachers — The qualifications of teachers shall be the same as those for the regular school departments, but men or women who have had a wide and successful experience in a special phase of agriculture may be approved to assist in such a course.

f. Qualifications of supervisors — Supervisors of part-time work shall have the same qualifications and duties as those of the regular day schools.

g. Plans for at least six-months supervised practical work.

1. Part-time work shall be promoted and organized with the understanding that each person enrolled shall do at least six-months supervised practical work.
2. The scope of the project shall be large enough to constitute a successful economic unit.

C. Teacher Training. Agricultural Education

1. PERCENTAGE OF TEACHER-TRAINING FUND BUDGETED TO AGRICULTURAL EDUCATION

Not less than twenty, nor more than sixty per cent.

2. KINDS OF SCHOOLS AND CLASSES

The training of teachers of agriculture shall be under the supervision of the State supervisor subject to the control of the State Board. It shall be conducted in the College of Agriculture of the University of Nebraska.

a. The improvement of teachers in service or itinerant teacher training is to be done by the Department of Agricultural Education of the University of Nebraska, but subject to the control and supervision of the State supervisor. The following plan shall govern:

1. Such schools and teachers as are indicated by the State supervisor shall be visited by representatives of the department, who will give assistance with such problems as outlining details of subject matter to be taught, making daily lesson plans, improving methods of presentation and technique of instruction, utilizing laboratory and illustrative material, and organizing projects. Representatives of the Department of Agricultural Education may by arrangement with the

State supervisor, visit schools and teachers in the State for purposes of assistance and study of local conditions. After each visit the department representative shall file with the State supervisor a memorandum showing persons interviewed, problems discussed and recommendations and criticisms made.

2. Bulletins bearing upon the topics listed under 1 will be prepared.
3. State and district conferences of teachers of agriculture will be called to consider particular problems.

3. LENGTH OF COURSE.

a. The teacher must have completed a four-years' course in a standard agricultural college and preferably have been farm reared.

b. A total of 125 college semester hours shall be required for graduation, at least 50 of which shall be in technical agriculture.

4. Entrance requirements shall be graduation from a four-year standard high school course.
5. Students in the College of Agriculture, University of Nebraska, who are prospective Smith-Hughes teachers, are required to complete the following requirements for graduation:

GROUPS LEADING TO THE DEGREE B. Sc. IN AGRICULTURE
AGRICULTURAL EDUCATION GROUP

First Year

	First Semester Hours	Second Semester Hours
Botany I, II	3	3
Chemistry *I, II	5	5
English I, II	2	2
Animal Husbandry I	3	..
Agricultural Engineering Ia	3	..
Horticulture II	..	3
Dairy Husbandry I	..	3
Military Science	1	1
	17	17

* Students with two points of high school chemistry will take chemistry III and IV; students with no credit in chemistry will take chemistry I and II.

Second Year

	First Semester Hours	Second Semester Hours
Chemistry 31	4	..
Entomology 3, 4	3	3
Agronomy 1, 2	3	3
English 13, 14	3	3
Economics 11	3	..
Animal Husbandry 5	..	3
Electives	..	3
Military Science	1	1
	17	16

Third Year

	First Semester Hours	Second Semester Hours
Agricultural Education 1, 2	2	2
Rural Economics 3 and 11 or 12	3	3
Rural Economics 2	..	2
Animal Husbandry 2	4	..
Agricultural Engineering 4	4	..
Agronomy 53	..	4
Electives	2	4
	15	15

Fourth Year

	First Semester Hours	Second Semester Hours
Agricultural Education 3, 4	2	2
Agricultural Education 5, or 6	2	..
Education (elective)	..	2
History or Sociology	3	3
Electives	7	7
	14	14

In meeting the foregoing requirements, the following requirements for teachers of agriculture must also be met, which entitles the graduate to a First Grade State Certificate and qualifies him to teach in Smith-Hughes schools.

TEACHERS CERTIFICATES UNDER SMITH-HUGHES ACT REQUIREMENTS FOR TEACHERS OF AGRICULTURE

The First Grade State Certificate

Minimum requirements —

Agricultural subjects*	50 hours
English	10 hours

* See general requirements for major or minors

Chemistry**	10 hours
Biology	12 hours
History, Economics or Sociology	9 hours
Education***	12 hours
Electives	18 hours
Military Science	4 hours
	125 hours

Required minimum hours of agricultural subjects for certificates:

Animal Husbandry	8
Poultry Husbandry	2
Animal Pathology	3
Dairy Husbandry	3
Agronomy (Crops and Soils)	8
Horticulture	3
Rural Economics or Rural Sociology	3
Farm Accounting	2
Farm Management and Organization	3
Marketing Farm Products	3
Woodwork	3
Forge Work	2
Farm Shop	2
Farm Machinery	3
Motors, Engines, Automobiles	4

Note — Two years of practical farm experience or its equivalent will be required for certificates to teach under the Smith-Hughes Act.

Federal and State funds for teacher training are to be used to reimburse the University for the maintenance of classes in vocational education organized exclusively for the purpose of training vocational teachers in accordance with the terms of the Smith-Hughes Act.

6. Provisions have been made for observation and practice teaching in nearby schools which offer courses in vocational agriculture. Each student teacher will have charge of the vocational agricultural classes for at least two weeks.
7. Graduation requirements include the completion of the course outlined under 5 and at least two years of practical farm experience.
8. The general State law provides for the certification of teachers of vocational agriculture.

** This requirement is for students with no chemistry credit. For those who offer two entrance points of chemistry a minimum of six hours is required.

*** The education courses may be taken by using elective hours in the various groups. The following courses are required: Agricultural Education, 2, 3, 4, 5, each two hours credit, and Education (elective) two hours.

Discussion of the Nebraska State Plan. — An examination of the Nebraska plan will disclose that it possesses all of the general specifications enumerated earlier in this chapter. It enters into a sufficient amount of detail to enable coöperative relationships between the State Board for Vocational Education and the Federal Board for Vocational Education to be efficiently carried out. The plans of different States vary. These variations are determined by local conditions. For example, twenty-five States have part-time compulsory attendance laws; the other twenty-three States have not. Those States having part-time compulsory attendance laws would naturally include in their plans specific provisions for carrying out such laws.

In a similar way, the States vary in the character of their dominant occupations, some being predominantly agricultural and others predominantly industrial. In some States the population is widely scattered over the State with no cities of any considerable size, while in other States the population is congested in large industrial centers. A study of the various State plans will show that all of these factors have affected the detail of each particular plan, but it will also disclose that all plans conform to the same general characteristics.

The effect of these carefully worked out State plans is now beginning to have a wholesome influence upon local communities in their planning for vocational education, so that there is an increasing tendency to conduct the local vocational programs in accordance with more or less carefully worked out local plans. This is a distinct forward step in the development of vocational education.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Prepare an individual plan for a program of vocational education in a textile city with a population of 50,000 or less.

2. Prepare a similar plan for the training of occupationally competent trade and industrial teachers, the training to be given in institutions designated by the State Board for Vocational Education.

3. Prepare a plan for the administration of a unit trade school in which six different trades are to be included. Check it up against that portion of the Nebraska plan submitted in this chapter, with regard to the general characteristics enumerated in the text.

4. Assume that you are a local director of vocational education in a city with a population of 200,000. You are called upon to prepare a plan for a program of vocational education to be submitted to the State Board for Vocational Education for its approval in connection with an application for State aid. (*a*) What information would you need to possess? (*b*) Where would you secure this information? (*c*) Secure this information from some source material and draw up a plan.

5. What are the objections to plans that are too detailed?

6. What are the objections to plans that are not sufficiently detailed?

7. What factors should be taken into consideration in determining whether a given plan is (*a*) too detailed, or (*b*) not detailed enough?

8. Secure a copy of your own State plan, or of some other State plan, and check it against the five characteristics given in this chapter.

9. Criticize the above plan from the standpoint of the degree of detail.

10. Make a list of conditions under which it would be undesirable to have any plan in connection with a local program of vocational education.

11. Make a corresponding list of situations where a plan would be highly desirable.

12. In making up State plans, and in the case of local plans where they have been developed, it is customary to include statements concerning the qualifications of teachers. In setting up these qualifications two methods have been adopted. According to the first method, statements are made specifically. According to the second method, there is inserted the phrase "or the equivalent." Which of these two methods is the more desirable? Why?

13. Referring to Chapter IV on the preparation and administration of the budget, would you consider either a budget or an estimate as a plan? Give reasons.

14. As a local administrator of vocational education, you are to appear before the board of education to secure its approval for the establishment of a coöperative apprenticeship program. Formulate a plan which will assist you in answering practical questions which may be asked by members of the board.

15. Would your plan, as prepared in the preceding statement, be in any way modified if you were appearing at a public meeting to present the same idea and if you desired to secure the backing of the community for your program? If so, how?

16. If you were to appear before the central labor council, would you modify your plan in any way, and if so, in what way?

CHAPTER XV

GUIDANCE, PLACEMENT, AND FOLLOW-UP OF STUDENTS

Preliminary. — It must be kept in mind that vocational guidance is the final act in a program of guidance which is as broad as life itself. In a comprehensive view, the guidance movement, so far as it functions in the organized educational system, is the direct result of modern child study and has as its objective the individualizing of education in contrast with the mass education. Its aim is to individualize rates of progress, times and types of differentiation and choices of electives to meet individual tastes, talents, needs and circumstances. Whatever temporary arrangement is made in regard to administrative responsibility, the efficient handling of the human element in education demands that eventually the school system develop a guidance bureau or department, similar to personnel departments in commercial and industrial fields, which shall follow the individual from his entrance throughout his school life and for at least three years beyond graduation in order that a continuous policy may be possible, that mistakes may be prevented, that handicaps may be corrected, that talents may be developed continuously when once discovered, and that the individual be not lost in a huge educational maze. Vocational guidance, placement and follow-up are integral parts of this process. Its supervision and administration should include all pupils in the school system, both academic and vocational, elementary school pupils and post graduates.

The Social-Economic Flow Sheet. — The work of the world is carried on by individuals who follow the various occupations which contribute to the creation of wealth and to the promotion of human welfare. This working group is continually depleted, and its ranks must be filled by those who follow after. Thus, there is in any social organization a continuous flow from the un-

differentiated infantile group to highly differentiated and specialized groups of mature and competent workers. This steady process of differentiation and of progress, from birth to the close of the period of productive effort, is marked by the constant existence of certain groups as indicated in Diagram No. 16.*

The Relation of Guidance and Placement to Vocational Education. — It will be noted in Diagram No. 16 that the third group is composed of those who are subjected to influences which affect their selection of an occupation. Among these influences are vocational guidance and certain organized agencies, such as manual training and industrial arts courses, which, to a greater or less extent, direct the individual's choice of an occupation. These directive influences culminate in a period of what may be called "apprenticeship" during which a given individual learns his job, either through the assistance of some organized agency, such as vocational education, or through some unorganized agency, such as the "pick-up" method.

If placement is to be regarded as playing any part in a scheme of vocational education, its function is the placing of a given individual on the kind of job for which he is best suited, either immediately before the "job pick-up learning period," or immediately after a period of organized training.

The Educational Flow Sheet. — The administrator of vocational education is concerned only with the administration of organized directive agencies and with agencies for giving organized vocational education. Hence, his administrative activities will function through the educational flow sheet, rather than through the social-economic flow sheet. This educational flow sheet is shown in Diagram No. 17.

Vocational guidance finds its maximum function in the blocks *B*, *C*, and *D*, given in Diagram No. 17. Placement finds its maximum function in blocks *E*, *F*, and *G*, shading off into a service of vocational adjustment in the area designated by the letter *H*.

Follow-up work functions in the entire lower area as represented by *E*, *F*, *G*, and *H*. The problem of the administrator with

* This diagram was originally prepared by Frank Cushman, Chief of the Trade and Industrial Education Service of the Federal Board for Vocational Education, and is used here through his courtesy.

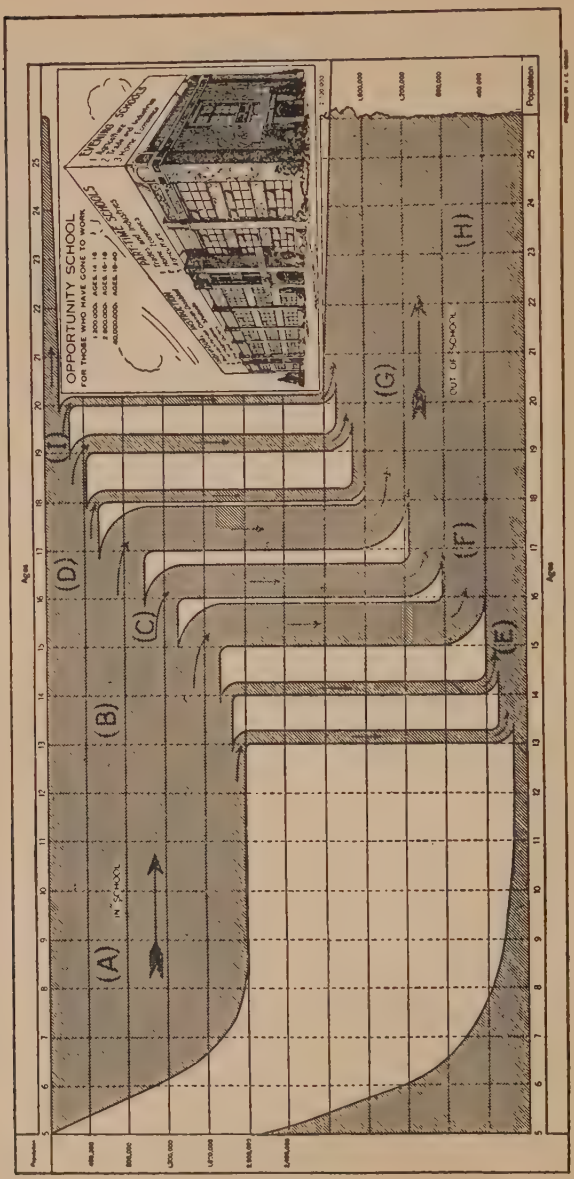
DIAGRAM No. 16

The Social Economic Flow Sheet

Non-Productive Period		Selective Period		Apprenticeship Period	Productive Working Period	Dropping-out Period
		Directive Factors Operate, such as:	Experiences Influence Selection	Vocational Training		
The younger generation.	General education functions for all normal persons and prepares for life's activities.	Social position. Wealth. Opportunity. Home environment. Aptitudes. Interests. Intelligence. Industrial arts. Manual training. Prevocational education. Part-time schools.	1. Job experiences. 2. Controlled experiences. *a*. Art training. *b*. Manual training and industrial arts. *c*. Prevocational training.	1. Unorganized: *a*. "Pick-up." *b*. "Knock-about." 2. Organized: *a*. Preëmployment. *b*. Apprenticeship. *c*. Extension.	Public service. Author. Transportation. Navigator. Commercial artist. Designing. Scientific investigator. Inventor. Mechanic. Professional man. Job worker. Engineer. Draftsman. Farmer. Merchant. Manager.	Termination of productive service in any particular occupation, due to retirement or death.

DIAGRAM No. 17

THE EDUCATIONAL FLOW SHEET*



* Population based on 1920 Census

regard to follow-up work is similar to his problem in vocational education, in that he is responsible for bringing about conditions such that the functions can be discharged with as much as possible of their theoretical or intrinsic efficiency. The discussion in this chapter, therefore, is concerned entirely with the responsibility of the administrator for establishing agencies capable of rendering the maximum social service.

Organization for Guidance, Placement, and Follow-up. — The ability of these agencies to operate with anything like their theoretical efficiency depends very largely upon their organization. Table No. 26 shows the various functions and outlines a typical organization for the effective discharge of those functions.

TABLE No. 26

ORGANIZATION FOR GUIDANCE, PLACEMENT, AND FOLLOW-UP

Function	Discovering Jobs Best Fitted to Individual Equipment	Getting the Man on the Job	Securing Information as to the Efficiency of the Program, for Back Checking
General organization.	1. Using a vocational counselor in each school. 2. Through a bureau of vocational guidance. 3. Using administrative and teaching staff. 4. Providing vocational reading material. 5. Through formal courses in studying occupations. 6. Through "tryout" courses.	1. Using a placement bureau. 2. Using administrative and teaching staff. 3. Utilizing coöperative agencies. 4. Using civic bodies.	1. Using a coördinator. 2. Using a correspondence clerk. 3. "Trusting to luck." 4. Using administrative and teaching staff.
Organization for law enforcement.		1. Work permit clerk. 2. Attendance officers.	
Organization for research.	1. Psychologist. 2. Research bureau.	Research bureau.	Research bureau.
Records.	Statistician.	Statistician.	Statistician.

Vocational Guidance. — Used in the broad sense, the term vocational guidance may be made to include all of the organized or unorganized directive agencies that tend to shape the course of an individual toward the ultimate successful practice of a given occupation. In its more restricted sense, it may be used to designate only those agencies that are organized for rendering this service. Whether such agencies are organized or unorganized, the measure of their social value is the degree to which they assist an individual in ultimately finding himself in an occupation, in the practice of which he can best capitalize his interests, his aptitudes, his ambitions, and his intelligence, thus securing both the emoluments and the satisfactions of life.

In the present experimental stage, this organized directive service is being attempted by various agencies, such as the testing psychologist, the vocational counselor, the bureau of vocational guidance, and the administrative and teaching staffs of institutions. Attempts are being made to perform this service by providing information regarding occupations, by giving formal informational courses in occupations, and by "try-out" courses. Various self-designated experts known as psychoanalysts have also given their attention to this problem.

An administrator who must deal with this phase of social service will often find himself confronted with the problem of choosing between these various agencies and of combining them. He will be more likely to secure social service that is worth while in terms of the established objectives if he gives very careful consideration to the limitations and possibilities of the various agencies which he may later utilize.

The Vocational Counselor. — One of the standard devices for securing vocational direction is the employment of the vocational counselor. The vocational counselor is supposed to be an individual so located within the school system that he can function in the areas *B*, *C*, and *D* of Diagram No. 17, on page 290. These areas cover the upper elementary grades and the secondary school period. The present source of supply consists very largely of a group of women and men who have prepared themselves through taking courses in vocational guidance in institutions of college grade, and who have had little or no occupational experience.

Hence, however good their intentions and their general qualifications may be, they obviously lack whatever assets would be secured through practical experience. When one realizes the multiplicity of occupations in which people earn their living and the amount of detailed information which a counselor would have to possess in order to do his work intelligently, it appears very doubtful if, utterly regardless of academic qualifications and training, the function of a vocational counselor can be very efficiently discharged in the present stage of our knowledge. At best, the counseling under these conditions must be based upon information secured at second hand, through the use of books and other descriptive material.

The most satisfactory equipment that a vocational counselor could possess would be a general knowledge of working conditions. No one individual can be expected to have a detailed knowledge of the five or six thousand classified occupations in the United States, or of the great number of occupations carried on in any one of many communities. As a rule, the present type of vocational counselor does not possess even this general knowledge of occupational conditions. The value of the vocational counselor would be very greatly increased if institutions making a specialty of giving training for counseling would draw their trainees from actual occupational groups, rather than from the group of young people who have come up through the usual academic school and college training.

The Bureau of Vocational Guidance. — Large school systems frequently establish a bureau of vocational guidance under the charge of a director. This director is usually a college-trained man. So far as function goes, he discharges essentially the same responsibility for the entire school system that a vocational counselor does within a given school, the difference being largely a question of scope. Vocational bureaus, by virtue of the size of their staffs, are often able to employ specialists, conduct research, establish coördinating relations, train their local counselors, and theoretically do a better job than the individual counselor can be expected to do.

At present the only source from which directors can be secured is the group composed of those who have made special preparation

through courses in college. At this time very serious questions may be raised as to whether or not this group actually constitutes the best source of supply. It has been suggested that another source of supply might be the group of individuals who have been markedly successful in personnel work in commercial or industrial concerns; and the suggestion has also been made that the group of markedly successful trained social workers might form a desirable source as directors of bureaus of vocational guidance. A third group that has sometimes been drawn upon is the educational or administrative staff.

Such a bureau might eventually be administered by a member of the superintendent's staff, usually entitled to an assistant superintendent's rating and having charge of Research and Guidance. Such an arrangement tends to promote research into problems of individual differences and their implications, thus making research human and guidance scientific. Certain other functions which are continuous throughout the school life of every child may also be administered under the same head. These include attendance and the issuing of employment certificates which are parts of a pupil accounting system, visiting teacher work forming a connection between home and school, discipline in both its remedial and preventive sense and character education which is the constructive phase of the problem of discipline.

Qualifications of a Director of Vocational Guidance. — The really successful director of a bureau of vocational guidance must possess qualifications that can not all be secured at the present time in any one individual. On the one hand, he must be a good organizer and a good administrator within the limits of his bureau, while on the other hand he must take a broad sociological view of the function of his bureau, must be able to establish coördinating working arrangements with all potential coöperating agencies, and must have a very intimate knowledge of social, economic, and working conditions. With one type of individual the danger is that the bureau may become a purely mechanical machine, and the corresponding danger on the other side is that it may become a sentimental, philanthropic agency. The administrator who decides to establish a bureau of vocational guidance must face the fact that anyone whom he may secure for the position of

director of this bureau can at best be only partially equipped. He will probably have to choose between an individual who is well trained technically and one whose practical experiences and attitudes constitute his chief assets. In general, the individual who is successful in administering a school or in teaching will not necessarily be successful in conducting a vocational guidance bureau; and, where a member of the educational staff is selected for such a position, the selection should be made for reasons other than ability shown in direct educational work.

Using the Administrative and Teaching Staff. — As against the functional organization represented by the vocational counselor or by the bureau of vocational guidance, reference may be made to the inclusion of this function along with the other duties of all members of the educational and administrative staff. Under this type of organization, any school principal or teacher would be expected to discharge the function of vocational guidance. This arrangement has been justified on several grounds. In the first place, it is evident that the average teacher knows her pupils better than any other person other than the parents, and that she possesses or can secure directive knowledge with regard to unorganized directive agencies to a far greater extent than can anyone else. The objections to this type of organization lie chiefly in the placing of so much additional responsibility upon the teacher, or upon the teaching job. The objection based upon lack of knowledge of occupational conditions naturally applies here as strongly as in the case of the vocational counselor, particularly in the large city school system with highly developed specialized departmental organizations, and its necessary handling of great masses of pupils. Under these conditions it is doubtful whether the average teacher knows his or her pupils any better than the average college professor knows his students.

In giving consideration to this type of organization, an administrator must recognize the fact that the effective discharge of the function of vocational guidance requires considerable time, and in order that this time may be available the teaching load must be considerably reduced. A teacher who is teaching in a high school five hours a day, out of a possible six, can not be expected to advise frequently with 20 to 50 pupils and assist them

in securing and intelligently utilizing all necessary functioning information; nor can such a teacher be expected to make the outside contacts by which this information may be secured.

While it is doubtless true that the teacher knows her pupils better than anyone else except the parent, it is also true that the average teacher is not equipped in modern methods of child study nor is the parent able, under ordinary circumstances, to see his child in competition with other children of his age or of his grade. In any guidance system there must be an organization which will help teachers to study their children. In organizing an effective machinery for guidance differentiation should be made between the elementary school and the secondary school. In the elementary school, the work can be carried on largely by the research staff. Its duties for the most part will consist of helping principals and teachers to know pupils better. This will be done by supervision of grading and classification and by use of standardized educational psychological tests. In the secondary schools with their departmentalized instruction there is a greater danger of losing the individual child in the mass. For this reason it is necessary to provide some machinery to insure continuity in the guidance program. In many places this is done by the employment of a class adviser for each grade in the school. This class or grade adviser takes charge of the pupils when they enter the school in the lowest grade and follows them throughout their course. She is assisted by a committee composed of the home-room teachers. She helps the home-room teachers to study the children. It is done by summarizing the previous school record of each child and tabulating all of the information which will throw light upon the reasons for success or failure in school, the probable length of the child's school life and the factors which will help to determine the choice of electives in individual cases. The class adviser adjusts individual programs, advises in special cases and supervises the follow-up for three years after leaving school either through graduation or dropping out.

The same general plan is followed in many junior and senior high schools. This plan provides a machinery for child study, individual adjustment, follow-up and the adaptation of school courses to the individual needs. The modern school program

originates in the adviser's room rather than the principal's office. And in the making of the school program the experiences of advisers and home-room teachers play an important part. Such a program never becomes static but is always sensitive to the changing needs of the pupils and of the community.

Three types of organizations for providing vocational guidance have been briefly discussed. Each of them obviously has certain inherent defects, and it must be admitted that no organization has yet been set up that has not suffered from these weaknesses. So far as the authors are aware there is no evidence which indicates that any one of these three organizations can be regarded as preeminently superior to the other types. It would seem that it might be possible to secure a more efficient discharge of this function, and to obtain more promising results, by establishing some sort of coöperation between either the vocational counselor or the vocational bureau itself and the teaching staff, and in this way bringing about a pooling of opportunities, of experiences, and of functional expert knowledge relating to the problem.

As our school system more nearly approximates the ideal, pupils will be better trained for self-guidance and the services of an adviser for each pupil will be required less frequently. Because of present deficiencies in our school organization many children leave school or graduate without proper vocational information or vocational experiences as a background for tentative vocational choices. Thus the work of the adviser is frequently that of the " pinch hitter " or " assistant in giving first aid."

Providing Occupational Information. — Much information with regard to opportunities and as to the demands of a large number of occupations is now available in various books dealing descriptively with occupations in terms of working conditions, opportunities for advancement, and demands upon the worker. Such information can be used as an auxiliary agency by any vocational counselor or teacher, and when so used may serve a useful purpose. The difficulty with this type of information is that at present it is confined to a relatively small range of occupations and does not cover many of the occupations into which the great mass of young people go. The theory on which the use of such information is based is that, if a young person is furnished with

adequate information, he can himself make a wise decision as to the line of employment into which he wishes to enter, or for which he desires to secure organized vocational training. In the great majority of cases, however, the use of such information is combined with the active functioning of some counseling agency, such as the teacher or the vocational guidance expert.

Occupational Courses. — A modification of the above plan is to organize the occupational information into definite courses, on the theory that a careful directed study and discussion will promote a more intelligent use of such information. Under this plan a number of definitely organized courses in occupations have been included in many school curricula. It is not necessary that a teacher of this subject have a large amount of occupational knowledge or contact; but it is very necessary that she be a good teacher in the sense that she can make people think, and that she can promote the right kind of an attitude toward work on the part of the pupils, and cause them to make an intelligent use of the information with which the course deals. It is evident that this kind of a teacher can not be secured from the usual group made up of specialized subject teachers, especially if such teachers have been engaged in specialized instruction for a long period of time.

As a matter of general theory, courses in occupations can be so placed in the school system that they will immediately precede either the pupils' going to work or the choosing of a vocation for which training is to be given. It is evident that the more mature the pupils and the shorter the interval between the completion of the course and the pupils' going to work, the better the course will function. If it were possible to set up an arrangement whereby pupils who had decided to leave the regular school in the near future could be brought into such a course without regard to grade, the best results would be secured.

Try-out Courses. — All of the devices discussed up to the present time have depended upon advice and information rather than on participating experience. It is generally recognized that such devices are weak, because they do not provide for this definite participating experience. In recognition of this fact it is now quite customary to make some kind of provision for try-out courses

in day schools wherein the individual is theoretically assumed to be given an opportunity to measure his own ability against the actual demands of various occupations. This is one of the stated functions of the junior high school. It is also customary in most vocational schools to provide an opportunity for transfer from one department to another, and to regard the first three or four months of training as essentially a "try-out" period. Courses in manual and in industrial arts have a try-out value in the same way, particularly in providing an opportunity for mass separation of the whole group of productive occupations into subsidiary groups, such as those involving applied art, commercial, or mechanical activities.

The Administrator and the Guidance Program. — The idea of getting every member of society into that form of productive activity in which he finds the greatest enjoyment and the most effective way of capitalizing his interest, his aptitude, his ambition, and his intelligence, is the Utopia of all sociological philosophers. This idea is found in the philosophy of Plato, and in practically every other philosophy of an Ideal State. The social objective of vocational guidance is, therefore, strictly in line with this philosophy. It represents a most commendable social effort. In considering such a desirable service, it is perhaps an ungraceful act to subject it to serious scientific study as to its practical social value. The authors can not dismiss the subject, however, without some consideration of the difficulties, which, up to the present time, do not appear to have been surmounted.

The Social Efficiency of Present Schemes for Vocational Guidance.* — Vocational guidance is now recognized as an integral part of many school systems. It is closely related to the development of efficient vocational educational programs; hence its successful functioning is a matter of great interest to any administrator of vocational education. When the situation is considered apart from the ideal, we must admit that there are many practical problems that must be solved and many serious difficulties that must be overcome before the ideal of this special service can be even approximately realized. It must be borne in mind that

* In connection with this discussion it may be well for the reader to refer again to Diagrams No. 16 and No. 17 on pages 289 and 290.

vocational guidance, as now conceived by its proponents, is theoretically a proposal to substitute organized for unorganized directive agencies.

When one considers the multiplicity of the unorganized agencies, the great variety of ways in which they act upon an individual, and the fact that a large number of them are entirely out of the control of the public school, it is a very grave question whether any organized agency can be expected to play a great part in directing the choice of the great mass of pupils.

A second difficulty is that any attempt at vocational guidance must be predicated upon three assumptions: first, that the economic situation existing at the time that the guidance is given will remain static in terms of kinds of jobs and the demands of those jobs; second, that the interest, aptitudes, and qualifications of the individual are also static; third, that it is possible to determine these interests, aptitudes, and characteristics with a considerable degree of accuracy. None of these assumptions is justified at the present time. New jobs are continually being created, old jobs are disappearing, and the demands of existing jobs are continually changing as the results of scientific research and inventions are utilized in practice. Moreover, the aptitudes and characteristics of individuals, especially in the adolescent stage, are not static; in fact, if one may use the old illustration of the " square peg in the round hole," it is somewhat doubtful whether, as a matter of fact, the individual does not, at least in many cases, fit himself to the hole or, in other cases, make the hole fit him. In other words, it is by no means certain that people do not, to a greater or less extent, either " make their jobs " or develop unexpected abilities to meet new job demands.

In all probability, anyone familiar with the subject will agree that there has not yet been developed a technique which would enable one exactly to determine aptitudes and abilities even if they were static.

These three fundamental discrepancies between theory and actual facts constitute the most serious obstacles to the development of a plan of vocational guidance which will function with any high degree of social efficiency in the program of vocational education, at least at the present time. What may happen

in the future, as research and experiment continue, no one can predict.

Placement. — It must be conceded that eventually every public school department must develop a machinery for the more efficient occupational placement of its pupils. A beginning has already been made in many cities through the department of research and guidance to centralize the guidance functions and to provide a machinery for the individualizing of education. Such work has not yet been standardized however. It remains a huge and very important task to be developed in the near future.

The placement function is now being included, to an increasing extent, in educational programs. The present tendency is for the vocational school to assume responsibility for finding jobs for its students when they are ready to leave school and go to work. This function is usually discharged, at present, in an unorganized way by most vocational schools. Organized provision for its discharge by the general public school system is usually made through placement bureaus, where such bureaus have been established. These bureaus are usually organized under a director with the necessary staff.

Qualifications of a Director of a Placement Bureau. — In general, the qualifications of the director of a placement bureau correspond very closely to those of a director of a guidance bureau, which have already been discussed in this chapter. The only difference of importance would seem to be that those who exercise the placement function must be in possession at all times of information as to where jobs can be secured. Moreover, vocational guidance can be spread over a considerable period of time, but placement is almost always carried on under emergency conditions. Either the boy or girl comes to the bureau seeking a job, or the employer comes to the bureau seeking a qualified worker. Evidently the efficiency of a placement service will depend very largely upon its ability to establish close coöperative relations with employing agencies and upon the fullness of its information as to minimum employment standards in the various occupations with which it deals.

Qualifications of Staff of Placement Bureau. — In order to discharge these functions effectively, it is evident that the members

of the staff of a placement bureau must be very well equipped to establish and maintain channels of information. This responsibility will call for the possession of qualifications differing from those of a teacher, or possibly of a vocational guidance expert. Probably the best source from which such individuals can be drawn is an occupationally competent group, such as would be represented by fairly competent vocational instructors. The problem is not educational; it is essentially similar to that of an employment manager, with the additional complexity that, whereas the employment manager needs only to know his own concern, the placement officer in a large public school system must know a wide variety of concerns. His success in placement will depend upon his ability to speak the occupational language, upon his actual knowledge of occupational conditions, and upon his personal occupational contacts. In the absence of these qualifications there is very great danger that the placement service may " go to seed " and begin to rely upon tables, graphs, and statistical methods, thus becoming in fact a research agency, instead of trying to get the right individual into the right job, which is the real function for which it should be established.

So far as the authors are aware, but little organized training has ever been provided either for directors or for staff members of placement bureaus. Hence, objectives are still confused, and functions are not clearly defined. Moreover, such experience as has been secured in technique up to the present time has neither been organized nor made available for training others.

Administrative Organization for Placement Service. — School superintendents must not expect to be able to employ at clerks' salaries, persons who are qualified to develop in education a field of work parallel to that of the personnel manager in industry. Possible savings to be derived from efficient work in this field will more than justify the expense and training of the right kind of personnel.

As in the case of the vocational guidance bureau, the placement service should be under the administrative direction of the vocational educational function, rather than under that of the general educational function. This statement is true for obvious reasons. Even more than in the case of functions at the point

where boys and girls leave school and go to work, as indicated on the chart on the frontispiece.

A properly functioning placement bureau should not conceive of its range of service as being limited to the boy or girl who is leaving school. On the other hand, it should be organized so as to be ready for service during the entire period of apprenticeship, as the term is used in Diagrams No. 16 and No. 17, on pages 289 and 290.

Vocational Guidance and Placement as Social Agencies. — The placing of the right person in the right job is purely a question of social and economic efficiency. At the present time two distinct functional agencies — the vocational guidance program and the placement and follow-up program — have been developed to accomplish this objective. In the present stage of our knowledge and experience, the first program is largely theoretical, largely on a " cold storage " basis, as has already been pointed out, and suffers from certain difficulties which have not yet been overcome. On the other hand, the placement function deals with the individual at the instant he enters into a real participating experience in the work of the world and should keep in touch with him during his period of adjustment. The difference between these two programs is very similar to that which is admitted to exist between the full-time preëmployment vocational school and the part-time vocational school. Theoretically, the first type of school can give a very superior type of training under ideal conditions; practically, it can not completely give such training. The part-time school, while theoretically working under less efficient conditions, can give more effective training. It is at least a question whether a thoroughly organized and properly equipped placement and follow-up service can not, under practical working conditions, render as much, if not more, directive service than can the typical vocational guidance program, at least in the present stage of our knowledge with regard to this special type of social service.

Organized and Unorganized Placement. — In the field of vocational education, the teachers are, theoretically, occupationally competent. These teachers have contact with the occupations. If they are occupationally competent they have the respect of both employers and employees. Wherever this situation exists

in fact, placement will be discharged by teachers and principals of the vocational school better than by a placement bureau. In other words, as the program of placement works itself out in practice, this procedure is the one that is being followed. A placement bureau is undoubtedly of great value in taking care of the great mass of people who have not availed themselves of the opportunity for vocational training. For the vocationally trained group it is at least doubtful whether a placement bureau can compete functionally with the teacher who knows employers, employees, and jobs, and the capacities, abilities, and aptitudes of his own students.

Where this additional function is recognized by the administrator of vocational education, it is necessary that he should bring about working conditions whereby the function can be effectively discharged by those who are conducting the vocational program. These working conditions may mean certain time allowances or they may mean the providing of a supporting service, or whatever other special provisions may be necessary.

Coöperative Agencies in Placements. — In many communities there exist organizations having more or less potential value as coöperative agencies. These include State and Federal employment agencies, civic and service clubs, Young Men's Christian Associations, Young Women's Christian Associations, Knights of Columbus, and various fraternal orders. In addition to these organizations, there are manufacturers' associations, chambers of commerce, and other civic organizations. The membership of many of these organizations includes employers, and to that extent offers coöperative possibilities in placement work. So far as vocational education is concerned, placement usually deals with individuals who have either received a certain amount of specific training for definite occupations or pay roll jobs, or who have already in some way secured sufficient training to enable them to get a job, and have then secured promotional training, as in the case of extension students. Hence, the problem of placement for vocationally trained people is not merely a job-finding function, such as constitutes a considerable part of the work of a State employment agency, and such an agency is not likely to be in a position to render a very great amount of coöperative assistance,

while other organizations may be of assistance chiefly as providing desirable contact points. The administrator of vocational education who is faced with the problem of securing such coöperation from these agencies will naturally endeavor to seek from each type of organization such special forms of coöperation as it is most capable of rendering. The chief danger with which he is confronted is that a specific placement service may become self-centered and may not take advantage of such coöperative opportunities as exist.

" Follow-up " Work. — In the original meaning of the term, " follow-up " work implied a check up, by the administrator or the supervisor, on the actual efficiency of vocational training. Its purpose was to give information which would function in the improvement or modification of the program. Entirely distinct from this viewpoint is the conception of follow-up as a placement service. An individual who has received his or her training through a vocational program may desire, from time to time, to make a change, in order to secure a better position or more desirable working conditions. A placement service can, therefore, continue almost indefinitely to render service to its clients. Fortunately, these two functions can be readily combined. If the placement service is continually making contacts with individuals who have been placed after they have taken advantage of the services afforded by the vocational program, it will easily be able to ascertain the degree to which the vocational training is actually functioning.

The whole question of " follow-up " work is antipathetic to the older conception of the school function, which was that when an individual had once left school the school had no further service to render him. Unfortunately, this notion still prevails to a considerable extent in the minds of certain school authorities and of the uninformed public. In many cases an administrator of vocational education will have a difficult job to persuade either the community or his own superiors that it is any part of the function of the school organization to " follow-up " for either of the purposes mentioned above. In numerous cases he will find it necessary to do considerable educational work in order to secure the establishment of any organization intended to discharge this function.

Utilizing Coördinators. — Wherever part-time courses are established it is customary to establish the coördinating function. This function is essentially that performed by a liaison officer in the military service. Where such a function has been established it can evidently also be effectively used for "follow-up" work. Under normal conditions, where a coördinator is provided in connection with any school, he will be able to take care of the "follow-up" work for that school to better advantage than any other official. This is true on account of his close contacts with, his intimate knowledge of the capabilities of his students, and his familiarity with occupational conditions.

Follow-up by Correspondence. — The follow-up work, strictly so-called, as distinguished from repetitive placement, is frequently performed through a system of correspondence. Cards are sent out and letters are written both to employers and to employees who have been students enrolled in the vocational program. The procedure includes the keeping of office records, which show where each individual is employed, how he has progressed, and whether or not he would like to change to some other job. This whole procedure has been carried to its highest point in the follow-up service which many colleges and universities now provide for the benefit of their alumni.

Relative Efficiency of Different Schemes. — As already discussed in this chapter, there are the following schemes for placement and follow-up: first, the placement bureau; second, the utilization of the staff of the vocational program; third, the utilization of coördinators; and, fourth, the utilization of correspondence methods. Apparently the most efficient scheme, as far as present experience has indicated, is that carried on through the use of the staff of the vocational program. The placement of ex-vocational students and the subsequent follow-up and replacement by a placement bureau, as a small portion of its total activities, is undoubtedly much less efficient. The attempt to render these services by correspondence has not proved at all satisfactory, because in many cases the office records are thoroughly complete with regard to those alumni who have been markedly successful, and distinctly incomplete or lacking for those who have not been markedly successful in school, and who could, perhaps, be most

benefited by such a service. Where a coördinating service is provided, it ranks with the utilization of the teaching staff in its value in rendering efficient service.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Discuss *pro* and *con* the following thesis: "It is not the business of the public school to find jobs for people."
2. Set up the qualifications for a director of a placement bureau.
3. Set up corresponding qualifications for a member of his staff.
4. Which, in your opinion, can do a better job, a vocational guidance bureau or a placement bureau, from the standpoint of securing the economic adjustment of the individual?
5. Make a list of the differences in the situation between (*a*) placing individuals who have been vocationally trained, and (*b*) placing young people who have dropped out of the general school system.
6. As an administrator you have occasion to employ a coördinator. Four candidates are under consideration. The first candidate has had a successful experience as a personnel manager in an industrial plant, and knows nothing about vocational education or about teaching. The second has been a successful high school principal of a small high school. The third has been a successful worker in a skilled trade. The fourth has received considerable training in vocational guidance of college grade. All have equally good personalities. Which one would you select for the coördinator, and why?
7. Is it necessary for a placement officer to know how to perform the jobs in which he places various individuals? If so, why, and if not, why not?
8. To what extent and in what ways, in your opinion, would a vocational guidance bureau assist in the work of a placement bureau?
9. As an administrator you are appearing before your board to recommend the establishment of a placement bureau. What arguments would you use?
10. In the course of your argument it appears that several members of the board have been convinced of the value of a vocational guidance program as a substitute for an employment service. How would you deal with the situation?
11. Prepare a two-column table. In the first column enter the services that can be rendered to boys and girls by a vocational guidance bureau, or by a vocational guidance program in a school system. In the second column enter the services that can properly be rendered by a placement bureau or service.
12. Would you distinguish in any way between the services that can be rendered by either bureau to the great mass of young people dropping out of school and to the product of specific vocational courses?
13. Formulate a definition of the social functions of vocational guidance and placement.

14. Referring to Diagram No. 17, on page 290, in which of the areas would a vocational guidance program function and in which areas would a placement program function to the best advantage?

15. Are these two functions coöperative, or are they mutually inclusive? Why?

16. As an administrator you desire to utilize the services of the vocational staff for placement and follow-up. Draw up a definite plan for making this additional function efficient when added to the other functions which the members of the staff are also discharging and must continue to discharge efficiently.

CHAPTER XVI

THE ADMINISTRATOR AS A PERSONNEL MANAGER

Preliminary. — One of the most important characteristics that distinguish the administration of a civilian organization from that of a military organization is the importance which is attached to personnel management in organizations of the civilian type. This importance arises largely from the fact that in a civilian organization no individual can be compelled to stay on his job. In other words, he has not enlisted for a term of years. It is becoming more and more fully recognized that one of the most important overhead items in a civilian organization is the replacement cost, and that one of the most important factors affecting turnover is personnel management. It is further recognized in such organizations that no exercise of authority can make men do as good a job as they are capable of doing. Hence, the great emphasis which is being placed upon morale.

The position of an administrator of vocational education is much more like that of a leader of a civilian team than like that of an officer in command of a military unit. The administrator of vocational education is forced into the position of personnel manager to an even greater extent than is the administrator of general education, and a failure to recognize this fact has often seriously interfered with the efficient administration of vocational educational programs. As indicating the difference in characteristics between the group of employees with which the administrator of general education deals and the corresponding groups with which the administrator of vocational education must deal, the following suggestive table has been prepared:

An examination of Table No. 27 will show a marked difference in characteristics and attitudes. These characteristics and attitudes come out of previous experience. For example, where the teacher of general education ordinarily has only teaching as a means of livelihood, the occupationally competent vocational

TABLE No. 27

CHARACTERISTICS OF GENERAL AND VOCATIONAL EDUCATION PERSONNEL

Factors	General Education	Vocational Education
1. Teacher.	Has one trade only.	Has two trades.
2. Earning power.	Maximum in teaching.	Maximum at trade.
3. Background.	Educational experience.	Occupational experience.
4. Contacts.	With youth.	With adults.
5. Sex of teacher.	Mostly women.	Mostly men.
6. Thinking.	Accustomed to generalities.	Accustomed to specific application.
7. Employment standards.	Does not feel responsible for attaining doing-ability objectives.	Feels responsible for attaining doing-ability objectives.
8. Experience in an administrative organization.	Accustomed to school administration.	Accustomed to occupational administration.
9. Attitude toward job.	"Afraid of his job."	Can always get another.
10. Self-expression.	Confined to official channels.	Accustomed to freedom of expression.
11. Discipline.	Used to mass discipline.	Used to occupational discipline.
12. Responsibility for pupils.	"In loco parentis."	Little or none.
13. Availability.	Easy to acquire.	Difficult to secure.
14. Training for teachers.	From fair to none.	From special to none.

instructor can always fall back upon his occupation. Hence, in situations which might lead to voluntary separation, the general school teacher is much more likely to stay on the job than the vocational instructor. The same situation exists with regard to earning ability. If a thoroughly competent individual has become a teacher, either through a desire to be of service to members of his craft or because teaching appeals to him, a comparatively slight "jar" may be sufficient to precipitate him back into the occupation where he knows, in many cases, that he can earn more money. Moreover, the occupational worker has come up through conditions in which no one felt any responsibility for others, where each individual was expected to look out for himself, and where a man's behavior outside of his hours of employment was largely his own business. On the other hand, the teacher in general education has a certain sense of responsibility for his pupils, and feels that he is to some extent "in loco parentis."

All of these different characteristics, arising out of previous environment and educational experience, whether organized or

unorganized, evidently establish for the vocational instructor a group of attitudes and points of view which are quite different from those of the general school teacher.

Because of these differences, which exist not only in the teaching personnel, but also in the students themselves, to the extent that they are employed, as in evening and part-time extension courses, the administrator of vocational education is much more nearly in the position of an office manager or a plant superintendent than is the administrator dealing with general education only. These differences in the situation mean that good personnel management, of the type that forms a part of good office management and plant superintendence, is as important in the administration of the vocational program as it is in the administration of a manufacturing plant or of a commercial establishment. Poor personnel management in vocational education may lead to the same disastrous effects, namely, poor morale, undesirable turnover, and the impossibility of enforcing standards, that are recognized as predominant dangers in large commercial and industrial establishments.

Promotion and Maintenance of Interest. — The distinction between the interested and the uninterested worker is that the former does his job as well as he can and the latter does his job as well as he has to in order to avoid losing it. It is generally recognized that certain factors tend to promote interest. Among the more important of these are (1) personal advantage, (2) professional or job pride, (3) organization pride, and (4) self-respect. In addition to these there is a pseudo factor, fear, which is often regarded as interest-producing. It is assumed, for example, that if a man is afraid of losing his job, this fear will result in his doing as good a job as he possibly can, while, as a matter of fact, it is most likely to result in his being extremely interested in figuring out how he can continue to do a poor job and " get by " with it.

The degree to which an administrator of vocational education can wisely use these interest factors is one measure of his ability. Without the interest which makes men want to do their best work, or, in other words, with administrative personnel management that kills interest, the whole efficiency of the program is very seriously menaced.

It is much more important in vocational education than in general education that the administrator should, as far as possible, make personal contacts with the members of his staff. He should be on the lookout for opportunities to give justified praise or commendation. He should recognize the attitude of pride in job ability which is characteristic of the competent occupational worker, and he should make the members of his staff feel that he recognizes their occupational ability in their respective fields. For example, there are two ways of setting up a course of study. One way is to work it out in the office and send it out with a notification that " this course of study is to be followed." This procedure may possibly be successfully followed in the general educational system where content is largely standardized. The same procedure, however, if followed with a group of occupationally competent teachers, might be almost disastrous. The only way to establish a course which they will intelligently follow is to make them parties to the construction of that course.

Promoting and Maintaining Satisfaction. — There is always considerable confusion as to the distinction between interest and satisfaction. As has already been stated, interest is the attitude of mind that makes an individual do his best on the job. Satisfaction, on the other hand, is the attitude of mind that keeps him from leaving his job. Evidently, there is considerable margin between these two factors. Dissatisfaction means undesirable turnover and break-down of morale. It is quite conceivable that a group of people may be satisfied, and yet not interested; and it is equally conceivable that a man may be keenly interested but not satisfied. There are many cases in everyday life where a man is making every effort to do as good work as he possibly can, yet at the same time he is " laying his wires " to secure another job because he is not satisfied with the one he has.

It is very important for an administrator of vocational education to be able to distinguish between these two attitudes of mind. In vocational education, at least in its present stage of development, satisfaction is not sufficient. Members of the staff must be satisfied in order that undesirable turnover may not occur, but actual progress and efficiency will come about in proportion as interest is maintained at a high level.

Satisfaction Factors. — As in the case of interest, there are certain definite factors that make for satisfaction. These are well recognized in the field of personnel management. Satisfaction, from the standpoint of personnel management, has negative rather than positive values. As long as a good man is sufficiently satisfied to stay on his job, the chief concern of the personnel manager is to promote interest. What he fears is dissatisfaction, which will break down morale and ultimately result in undesirable turnover. Hence, satisfaction factors are commonly expressed negatively in terms of dissatisfaction factors, meaning causes of attitudes of mind which tend to break down the morale or to result in a separation from the organization. The following list of dissatisfaction factors is fairly representative, though by no means complete:

1. The man thinks he is not getting a "square deal."
2. The man is not fully satisfied with the working conditions.
3. The man feels too big for his job.
4. The man dislikes his job for one reason or another.
5. The man thinks that the administrator is discriminating against him.

It will be noted that these dissatisfaction factors may occur quite independently of the facts of the case. The question is not whether or not the man has actually been the victim of discrimination, but whether or not he thinks he has. It is not whether or not a member of the staff is actually competent to handle a better job, but whether or not he *thinks* he is competent to handle the better job and hence deserves greater recognition. These facts make the whole problem of dealing with dissatisfaction much more difficult than that of dealing with interest, because in many cases evidences of dissatisfaction do not appear until the damage has been done, and, in most cases, dissatisfaction must be deduced from indirect evidence. If human beings were so constituted that whenever they felt that there was any reason for dissatisfaction they would go directly to the responsible superior and inform him accordingly, and if the responsible superior was an able per-

sonnel manager and was, therefore, able to convince the individual that there was no real cause for his dissatisfaction if a real cause did not actually exist, there would be much less trouble due to dissatisfaction.

Dealing with Dissatisfaction. — Every case of dissatisfaction is a special case. In matters affecting satisfaction or dissatisfaction, no one can predict how the human mind will work. It is a case of individual diagnosis. The great danger, from the standpoint of the administrator, is that cases of dissatisfaction will have reached an acute stage before he knows anything about them. The supervisors know the situation as it exists in the field much better than the administrator can know it. If the administrator can establish and maintain the right kind of coöperative relations with the supervisor, he will be very materially assisted in handling cases of dissatisfaction and in preventing their occurrence.

Securing and Maintaining Satisfaction. — The administrator of vocational education, in his administrative acts, affects two groups of people. Primarily he affects the members of his own staff, and secondarily he affects the entire student body in his program. In both cases it is well to bear in mind that, with the possible exception of young people attending compulsory part-time continuation schools, he is dealing with individuals who are more or less independent and in whom dissatisfaction may easily culminate in a voluntary separation from the program. This statement does not mean that an administrator should be afraid to exercise necessary administrative functions, but only that he should be careful to see that he is in possession of all of the facts related to a situation before he acts, and that he should handle the situation in such a way that, if possible, it will not promote dissatisfaction.

As an illustration of a case of maladministration of this sort, a number of years ago a certain city conducted evening trade extension courses in connection with its vocational program. A number of men attending such courses came from an adjoining city. The only available means of transportation was a trolley line which ran at intervals of thirty minutes. The administrator of general education had issued an administrative ruling with

regard to the general evening school, to the effect that any student more than five minutes late in arriving would be marked absent for that evening, and that a certain number of absences meant exclusion from the class. Without giving much thought to the matter, he also made this ruling apply to the evening vocational classes. According to the trolley time table, the group of men in question would either have to arrive at the school building twenty-five minutes before school began, or five minutes after, thus giving them a choice between spending twenty-five minutes on the sidewalk waiting for the building to open, or of being five minutes late. The enforcement of this administrative ruling drove this group of desirable men out of the school entirely, and to that extent nullified the social service for which the evening vocational school was being conducted.

In many cases, satisfaction will be promoted if a situation is so handled that a desirable or necessary administrative ruling is apparently proposed by the people affected by it, rather than imposed upon them by an exercise of administrative authority.

Promoting and Maintaining Morale. — Morale is a product of interest and satisfaction. Like both of them, it is a state of mind. Morale, as originally used, was a military term. It implied the willingness of a military body to " fight to the last ditch " and to follow their leader wherever he would lead without any breakdown in the organization. As carried over into civilian life, it has very much the same meaning.

Morale is an intangible thing and is almost impossible to define accurately, and yet its presence or absence can be accurately and readily recognized. Morale may be said to be the additional factor which makes the difference between a group of individuals, each of whom is interested and satisfied with his own individual job, and a " team." The team idea, of course, involves coöperation. It involves what may be called a group intelligence, resourcefulness, and courage. It is the most desirable thing that any group leader can create, and its absence is the most unfortunate condition that can exist in any organization.

As already intimated, the presence or absence of morale is shown by indirect evidence. Its presence is shown by the team's

doing its job plus, by the willingness of the members of the team to accept and follow leadership, and by their resourcefulness in dealing with emergencies. It is the most difficult thing to build up and one of the easiest things to destroy.

Morale and the Administrator. — The relation of the administrator to morale is almost entirely due to the exercise of his administrative functions. The promotion of morale lies much more in the hands of the supervisor than it does in the hands of the administrator. The breaking down of morale, due to maladministration, lies much more in the hands of the administrator than it does in the hands of the supervisor. Hence, the chief concern of the administrator of vocational education should be to discharge administrative responsibilities so wisely that morale built up by the supervisory staff will not be broken down by intentional, unintentional, or insufficiently considered administrative acts.

Staff Morale. — The administrator is responsible for promoting and maintaining morale in his own immediate staff. Here his position is no different from that of the leader of any team. He is dealing with people over whom he has direct authority and with whom he has direct personal contact, while in other administrative acts he may be dealing with people of whom he has never heard or whom he has never seen. The same general principles of good personnel management apply under these conditions as under other conditions.

Training in Personnel Management. — Since the importance of good personnel management is so much greater in vocational education than it is commonly recognized to be in general education, one would naturally expect that organized training for the position of administrator of vocational education would include the general principles and the experiences which are recognized as having a bearing on personnel management and which are matters of current practice in commerce and in industry. So far as the authors are aware, however, these subjects have not been included in the training curricula for this particular purpose. It is unfortunate that an asset as important as the ability to manage people has not yet secured a recognized place in the training curricula set up for prospective administrators of vocational

education or for the professional improvement of those already employed.*

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Make as complete a list as you can of the different causes which might result in the breaking down of interest on the part of a member of the staff of an administrator of vocational education.

2. You are an administrator. A desirable member of your staff informs you that he has made up his mind to resign. He intimates that he is in some way dissatisfied, but does not state just exactly why he is dissatisfied. (1) How would you proceed to secure the facts of the case? (2) Suppose that you discovered that the real cause of dissatisfaction was the fact that under the salary schedule the maximum limit for a high school teacher was $500 more than the maximum limit for a vocational teacher; how would you deal with this situation?

3. What is the difference between satisfaction and morale?

4. Make a list of administrative rulings which, when applied to evening trade extension students, would result in dissatisfaction.

5. Discuss the reasons why "fear" is not a true interest-producing factor.

6. In some parts of the country it is quite common in the evening trade extension courses to require the deposit of a fee of $2 to $5 per student, to be paid on registration and to be returned if the student remains throughout the entire course with a maximum allowance for absence. What interest factors are being utilized in this instance?

7. Is morale something that can be bought?

8. Where a serious explosion or other accident has occurred in a coal mine and a number of underground workers have been trapped, the daily papers in carrying this story will always recite the almost superhuman efforts that are made by their fellow-miners in an attempt to rescue them alive. Is this effort on the part of their fellow-workmen due to interest, morale, or satisfaction? Why?

9. Why will interest be promoted more by deserved praise than by deserved criticism?

10. It has become customary for many administrators, especially in commerce and industry, to consult very freely with their immediate assistants with regard to proposed administrative action. Does such a procedure promote morale, interest, or satisfaction? Does it tend to insure more satisfactory carrying out of the administrative action? Why?

* The reader who is interested in going into more detail with regard to personnel management from the standpoint of satisfaction, interest, and morale, will find a considerable extension of the points discussed in "The Foreman and His Job," by Charles R. Allen, published by J. B. Lippincott.

11. What is the effect of a fixed salary schedule upon the morale of the organization?

12. Which tends most to promote morale and efficiency in the program, a rigid administration or a coöperative type of administration? Why?

13. Can an organization be extremely efficient when its morale is extremely low?

14. Which, in your opinion, is the most important in promoting interest, satisfaction, and morale: (*a*) giving everybody a square deal, (*b*) rewarding evidence of individual ability, or (*c*) considerate and sympathetic treatment of mistakes? Give reasons for your answer.

CHAPTER XVII

LEADERSHIP

Preliminary. — Under modern conditions all social activities are carried on by groups rather than by individuals. Every group looks to some individual for leadership. Without leadership the group becomes a heterogeneous aggregation of individuals; with effective leadership it becomes what is commonly designated as a " team." The administrator of vocational education depends upon a group for the actual attainment of the social objectives represented by his program. The administrator, therefore, by virtue of his position, must assume responsibilities of leadership.

The administrator in his position of leadership must deal with two or more groups: first, with the group made up of members of his own immediate staff; and second, with other groups composed of those with whom he has official or unofficial relations. In the case of a State director of vocational education, these groups may be composed of the directors of local programs with whom he has official relations, and with such groups as rotary clubs, chambers of commerce, and associations of employers and employees with whom he has no official relation.

What is Leadership? — Leadership is one of those intangible things whose existence is recognized by its results. It is frequently impossible to account for these results although they are readily observed. In general, it may be said that leadership is the quality that brings about such conditions as high morale, interest, and satisfaction. The difficulty is that it is almost impossible to correlate these conditions with any specific traits of the recognized leader. In the first place, there are different kinds of leadership, leadership in thinking, leadership in doing, and, in fact, leadership in most of the group activities of life.

It has been said that the evidence of the possession of qualities of leadership by an individual is that he " has the gang behind

him," and perhaps this is as good a descriptive statement as can be made.

Characteristics of Leadership. — It is easier to determine the presence or absence of leadership than it is to determine the characteristics of the leader. Table No. 28 suggests certain characteristics of a leader and certain evidences indicating the existence of leadership.

TABLE No. 28

Characteristics and Evidence of Leadership

Characteristics of a Leader	Evidence of the Existence of Leadership
1. He recognizes individual ability and permits it to function.	1. There is good group coöperation.
2. He plans ahead.	2. The group is making progress toward the job objective.
3. He selects the right man for the right job, and then gives him a "square deal."	3. The group morale is good.
4. He knows his job.	4. The members of the group have confidence in the leader.
5. He is willing to work himself.	5. The members of the group will undertake any job assigned by their leader.
6. He places the team job above his own personal advantage or convenience.	6. Members of the group place the team objective above personal objectives.
7. He takes care of his men.	7. Members of the group are personally loyal to the leader.
8. He believes in the team job.	8. Members of the group are loyal to the job.

It must be understood that the items given in Table No. 28 are suggestive only and can be supplemented or replaced by others of a similar character. A comparison of the two columns shows that evidence of leadership is nothing more than the result of the existence of the same characteristics on the part of the group as

are possessed by the leader. If the leader himself practices the "square deal" the members of his group will also practice the "square deal." If the leader knows his job the members of the group desire to know their jobs, and will know them because the leader will have taken sufficient interest in the members of his team to have encouraged them to secure mastery of their respective jobs.

Every person in an administrative position tends to prefer to work with people having the same characteristics as himself. As opportunity offers through changes in personnel or through expansion, the competent administrator possessing leadership ability naturally adds to his staff the kind of people with whom he likes to work, which means those who themselves possess leadership ability. If he does not know his own job, if he is not loyal to the job, if he is unsympathetic and does not take care of the members of his group, he will have a tendency to add to his staff people who possess similar characteristics — "like master, like man."

Importance of Leadership in Vocational Education. — Vocational education is yet in the experimental and elementary stage. As yet it is far from being standardized, and it is doubtful whether it ever will become standardized, or ever should become standardized. At least for many years to come, there is greater need for constructive thinking and leadership ability in vocational education than is relatively necessary in other forms of education. On the one hand, the much higher degree of standardization which now exists in general education has led to a much greater emphasis upon executive and administrative functions and to relatively less emphasis upon leadership qualifications; on the other hand, the pioneering conditions existing at present in vocational education are placing a higher premium upon leadership ability and will continue to do so as long as the program is in an experimental and promotional stage.

The success of an administrator of vocational education will, therefore, depend very largely upon his ability to secure and maintain leadership.

Elements of Vocational Educational Leadership. — The general characteristics of good leadership apply wherever a group is work-

ing toward a common objective. The administrator of vocational education works under conditions which are, to a certain extent, peculiar even as between general education and vocational education. In the midst of the prevailing confusion of thought, he must be very clear as to the social objective of vocational education as distinguished from other educational objectives. For reasons already discussed, there is placed upon him the particular burden of thinking constructively and of keeping his thinking well in advance of the thinking of the general group. Since so much is to be learned, he must be a teacher in the broad sense of the word. He must not only be able to think constructively but must also be able to educate the members of his group with regard to the results of his constructive thinking. He deals largely with people who are not under his direct control, but who are directly or indirectly concerned with the promotion and operation of his program. Consequently, in many cases, he must work through indirect objectives.

It is particularly true in the administration of vocational education that much responsibility must be delegated to others, both on account of the varied character of the technical information required, and also on account of the great individual latitude which must exist in the actual carrying on of the work. This same situation requires that the administrator be able to recognize and utilize ability wherever it can be found, either inside or outside of his official organization.

To a much greater extent than is absolutely necessary in other forms of education, the administrator of vocational education must be able to utilize informal contacts, since there is very little evidence of a statistical kind upon which he can rely, and but little information that he can secure through formal methods. As a matter of fact, the administrator of vocational education is very much in the position of Columbus, or any other great explorer, pioneering in a new territory, and to that extent he must know his individual people as far as possible, and must be willing to listen to them; otherwise he is likely to make the mistake that General Braddock made in his ill-fated expedition, and like General Braddock he may say before he passes away, " I would not have believed it to be possible."

Securing Leadership. — After an administrator of vocational education has held a position for some time, if he possesses normal ability, he will be able to form a very fair estimate of the degree to which he is accepted as a leader. When a man becomes an administrator in a new community or by promotion, he is immediately subjected to the scrutiny of his associates, both official and unofficial. If he has been promoted from within the organization, his former associates are wondering how he will behave in his new position, whether he is going to get an exaggerated sense of his own importance, and whether he will continue to associate with his former friends. A period of observation and speculation inevitably follows his promotion. If the new administrator comes from another community, the only difference is that his new associates do not know him and are more inclined to give him the benefit of the doubt.

In this situation the administrator has the problem of securing leadership. In the first place, he must realize that no man can force his way into a position of leadership. There is no special technique, no "royal road" by which such a position may be obtained. The new administrator must realize that leadership is a slow growth, representing the sum total of thousands of different reactions by different individuals under different conditions. At best the new administrator can only hope to secure a following that represents the majority of his group of associates; if he secures and maintains his leadership, this majority will gradually increase as he remains on the job. The increase in his leadership will largely develop through the active work of his followers rather than through his own personal efforts. The administrator's actual ability to secure the position of leadership will depend on the belief of the people with whom he associates that he possesses the characteristics suggested in Table No. 28, page 320. It is not so much a question of what the administrator says or thinks, but of what his associates believe as a result of their continual contacts with him.

Maintaining Leadership. — Assuming that a position of leadership has been attained by the administrator, his future acts will all have a bearing upon his ability to maintain that position. As he proceeds in the performance of his duties, all kinds of changes

will take place in the attitudes and beliefs of members of his group. Some who originally placed him upon a pedestal of leadership will have their belief shaken, while others who at first were unwilling to accept him as a leader will later change their attitude. In other words, the whole situation in regard to the leadership of any individual is in a continual state of flux.

There is no recognized technique in the maintenance of leadership. If a man attends to his business, keeps his balance, is unaffected by either an inferiority or a superiority complex, and proceeds honestly with his job according to his beliefs, he is taking about all the precautions with respect to maintaining leadership that anyone can take.

The administrator should remember that he must be ready and willing to accept criticism even though some times it may be unfair, and that he should not be overanxious to defend himself when criticized. In the long run, the administrator who is able to carry out these suggestions, if he possesses leadership characteristics, will be able to maintain his position as a leader.

Losing Leadership. — Many administrators have secured a position of leadership but have been unable to maintain it. The causes which may lead to a loss of leadership are almost infinite in number. They all arise from a final belief on the part of the associates of the administrator that he lacks some or all of the characteristics listed in Table No. 28. The members of his staff finally form an opinion that he does not know his job, that he does not know where he is going, that he does not work on the principle of a "square deal," that he does not recognize and utilize ability, that he does not think constructively, or that he is unwilling to draw on the experiences of others.

The peculiar thing is that this unfortunate result may come about without his being considered lacking in all of the characteristics of leadership. If a decided majority of his associates believe that he is deficient in any one of these characteristics his position of leadership immediately begins to decline.

Among the ways by which a position of leadership may be lost is what is commonly termed "putting up a bluff." This statement applies to an individual who tries to make people think he is a leader when he lacks either the characteristics or the ability.

Leadership may also be lost by being in too much of a hurry to secure it. Many have failed because of being too impatient and of not realizing how slow is the process by which a position of permanent leadership is built up. Another thing that has prevented many an administrator from securing permanent recognition as a leader is his talking too much about the need for leadership, without displaying evidence of its possession. It is doubtful whether any other factor has so much to do with the loss of leadership as has the state of mind known as an inferiority complex. Every administrator is exposed to all sorts of situations which tend to discourage him; if he permits them to "get on his nerves," with the resultant worry and doubt, his state of mind will inevitably decrease his capacity for leadership.

Leadership and Administration. — The whole question of leadership is largely psychological, as it depends entirely upon what people believe. Administration, on the other hand, is concrete and is not dependent upon psychological factors. The difference between leadership and administration is similar to that between the mechanical control of a series of manufacturing processes and the operation of those psychological factors which affect the attitudes of mind of the members of any operating force. It is possible for a man to be a very good administrator and, at the same time, a very poor leader, and the converse is equally true; although it should be recognized that, in the broad use of the terms, good administration is included in good leadership.

For various reasons, emphasis has been laid in the past on what may be called the mechanical side of administration, both in industry and in education. Just as industry is now learning the importance of leadership, so in vocational education the extreme importance of administrative leadership is recognized by all students in that special field. The carry-over from the older conceptions of general education and of industry has led in many cases to a minimizing of the importance of securing and maintaining leadership in administrative work in vocational education.

In most administrative positions in vocational education, administrative functions are delegated to members of the staff and to others who are responsible for some part of the operation of

the program. Leadership is required in each of these positions, for example, in that of a State director of vocational education, who has supervisors on his own staff. He and his supervisors must deal with local administrators, and local administrators must in turn deal with other local administrators and supervisors, all of whom in turn must deal with the teacher, while the teacher must deal with the pupil. Hence, unless leadership extends all the way through the system, from the director to the teacher, the organization is weakened. Wherever any member of the organization is responsible as the leader of a team, it is his duty to secure and maintain leadership, and it is the duty of his immediate superior to assist him to secure and maintain it.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Make an analysis of the leadership characteristics of one or more of the following individuals: (*a*) George Washington, (*b*) Thomas Jefferson, (*c*) Theodore Roosevelt, (*d*) Napoleon Bonaparte, (*e*) Horace Mann, (*f*) Robert E. Lee, and (*g*) Abraham Lincoln.

2. Which is the more important asset for an administrator of vocational education, executive ability or leadership ability? Why?

3. Set up in two parallel columns the conditions in general and vocational education, respectively, which would justify you in stating that a higher degree of leadership is necessary in vocational education than is commonly regarded as necessary in general education.

4. Is leadership as important in general education as in vocational education? Give reasons for your answer.

5. Prepare a list of a number of leadership characteristics in addition to those given in the text.

6. Prepare a list of ways and means by which an administrator can lose his position of leadership.

7. Prepare a list of ten ways and means for maintaining a position of leadership.

8. You are in the position of an administrator coming into a new position in a community in which you have never before been employed. How would you proceed to build up a position of leadership?

CHAPTER XVIII

COÖPERATION

Preliminary. — In the earlier part of this book the general responsibility of the administrative function was stated as that of securing and maintaining such working conditions as would best promote the efficiency of the program of vocational education. By working conditions the authors mean the bringing together of a group of students and a teacher under conditions that make effective instruction possible. Referring to the well-known illustration of the university as " Mark Hopkins on one end of a log with his pupil on the other," the administrative function has, in theory, been completely discharged when the right kind of a " Mark Hopkins " is seated on one end of the right log, with the right kind of a pupil seated on the other end. In practice, however, it is not always easy to secure the right kind of a " Mark Hopkins." It may be necessary to obtain assistance in securing the right kind of a log, and it is not always easy to secure the right kind of a pupil. For these reasons administration is oftentimes more difficult in practice than in theory.

Coöperation and Administration. — The actual results of bringing a teacher and a pupil together are largely dependent upon the character of the teacher and the character of the pupil. Nevertheless, there are situations more remotely connected with the efficiency or inefficiency of a program which must be recognized by the administrative function. For example, the character of the supervision is a matter of considerable concern to an administrator, since the supervisory function is but one step removed from the relation of the teacher to the pupil. If this discussion concerned itself only with the direct relation of pupil and teacher, and the relation of the supervisory function thereto, it would fail to take into consideration certain other conditions which vitally affect the success of any program of vocational education. Among the more important of these conditions is the presence or

absence of the right kind of coöperation. Hence, the administrative function is charged with a very direct responsibility for promoting, securing, and maintaining desirable coöperative conditions throughout the organization.

The Administrator and the Supervisor. — Concerning relative responsibilities for securing and maintaining coöperation, a fairly general statement would be that the administrative function is largely concerned with securing coöperation, and the supervisory function with maintaining coöperation. As between the supervisory and the administrative functions, the supervisor must deal with more specific situations requiring coöperation, and with a greater number of contact points. The administrative function, on the other hand, usually deals with a smaller number of contact points and with situations of a more general and fundamental character. As a result of such differences, the establishment and maintenance of effective coöperative situations, while equally important to the success of the program, establish problems and methods of dealing with such problems which are distinctly different as between the administrative and supervisory functions.

Two Kinds of Problems. — In making possible the establishment and maintenance of desirable coöperative situations, an administrator must give consideration to two distinct groups of conditions. These conditions may be designated as external and internal. External conditions include all those desirable cooperative situations which open the way for the work of the supervisor or which assist him in securing, through his various contact points, that specific coöperation which is vitally necessary for the success of his supervisory program. When a State director of vocational education confers with a local board of vocational education concerning the establishment of vocational schools within the local community, he is dealing with external problems of cooperation. When a local director of vocational education or the superintendent of schools makes possible the establishment of an apprenticeship program through securing the coöperation of employers and employees he is also dealing with matters relating to external coöperation.

By internal coöperation is meant the promotion and maintenance of coöperative relations and service within the staff for which

the administrator is responsible. When an administrator promotes or maintains coöperative relations between the various specialists on his staff, he is dealing with situations which exist entirely within his own organization and which can therefore be properly designated as internal situations.

The administrative problems arising out of the two types of situations just illustrated require distinctly different methods and procedures. External coöperative situations must be dealt with largely on a service basis, since under these conditions the administrator has no direct authority, except in so far as he may derive or possess a certain kind of authority by virtue of certain formal coöperative relations such as are discussed in the latter part of this chapter.

Problems in coöperation arising out of internal situations are of necessity much more affected by the authority which the administrator possesses than are problems arising out of matters relating to external coöperation. With regard to the members of the administrator's immediate staff, external coöperative situations are largely connected with the initiation and operation by others of programs of vocational education, while internal situations are much more likely to be concerned with matters of administration.

What is Coöperation? — There are at present two distinct theories as to what constitutes coöperation. According to the first theory, coöperative relations are fully discharged when all definitely delegated responsibilities are fully discharged. According to the second theory, opportunities for coöperation do not develop until all definitely delegated responsibilities have been discharged. According to the first theory, coöperation can only take place within an organization where duties have been definitely determined and assigned. According to the second theory, it can exist wherever an individual or a group of individuals is in a position to assist another individual or group of individuals in getting a job done.

According to the second theory, therefore, true coöperation always involves an element of voluntary assistance which can not be required by any exercise of authority. Where a local service club offers to assist in finding work for pupils in a vocational

school, in order that the pupils may earn sufficient money to enable them to remain in school, this coöperation on the part of the club is an entirely voluntary service, since the administrator has no official relations with the club or with its members. True cooperation, therefore, implies a willingness to render assistance when one has been shown that an opportunity for giving such assistance exists, or it results from an interest or an attitude of mind that enables the individual to perceive such opportunities for coöperation. The authors have based their discussion of coöperation upon the second theory rather than upon the first.

The Administrator and External Coöperation. — Since any program of vocational education is largely dependent for its success upon the establishment and maintenance of external coöperation, administrators will be concerned with the groups with which they must deal on an external basis. Since the parties in interest with regard to any vocational program are essentially employers, employees, the general public, and the group officially responsible for general education, the work of the administrator will deal largely with groups representing these various parties. Among the more important of these external groups are the following:

1. Various service clubs.
2. Labor organizations.
3. General social groups.
4. Superior authorities other than that to which the administrator is directly responsible.
5. Occupational organizations of various types.
6. Educational groups.

Each of these various groups, as will appear later in a more detailed discussion, possesses special characteristics, is capable of rendering special kinds of coöperation, and has, as a rule, special interests in connection with the vocational program. For these reasons, each group requires different methods of approach, and, for each group, opportunities for securing specific coöperation will occur in different ways and at different times.

The Administrator and Internal Coöperation. — Attention has already been drawn to the fact that the authority possessed by the administrator over the members of his staff introduces factors

which do not exist in the case of external coöperation. These factors tend to make internal coöperation more difficult for the administrator to secure and maintain than external coöperation. In general, problems in internal coöperation will fall into one of three groups, as follows: (1) the securing and maintaining of coöperation between the administrator and the different members of his staff; (2) the securing and maintaining of coöperation between staff members of equal rank; and (3) the securing and maintaining of coöperative relations between subordinates and their superiors. Of these three type problems, the first probably presents the most difficulties for the administrator, for several reasons. Under most conditions, staff members have greater supervisory responsibilities than they have administrative responsibilities. They are less experienced in administrative problems and hence are less equipped to coöperate with the administrator in the administrative field.

Staff members, especially those who have similar responsibilities, or who are of equal rank, are in the habit of discussing their problems with each other much more freely and frankly than they would discuss them with subordinates or with official superiors. It is a general characteristic of human nature to have one's greatest interest in one's own job, and staff members are no exception to this general rule; hence, they are much more likely to observe opportunities for coöperating with each other, where personnel relations are good, than they are to see or take advantage of similar opportunities for coöperating with their superiors or subordinates. All of these circumstances, and certain others which will occur to the reader, account for the greater difficulty encountered by an administrator in securing internal, as compared with external, coöperation.

Reasons for Lack of External Coöperation. — It is the opinion of many students of education that administrators of general school programs have failed to a greater or less extent in tying up their educational programs with life activities. This situation is due very largely to the failure of the administrator to take advantage of the potential opportunity for establishing effective coöperative relations with such parties in interest as were suggested in a preceding paragraph. This same situation also exists to a

certain degree in vocational education. Wherever it exists, it is due to a number of causes. In an earlier part of this book, attention was drawn to the danger that an administrator will fail to realize that he has other functions besides those that can be classified as purely executive in character. The administrator who regards himself solely as an executive will naturally feel no responsibility for the promotion and maintenance of external coöperation, and may feel the same lack of responsibility for securing and maintaining internal coöperation, although this latter situation is less likely to exist, since the results of lack of internal coöperation are usually brought more emphatically to his attention.

The administrator who thinks of himself simply as an executive must not be confused with the administrator who is of a distinctly executive type of mind. An individual of the latter type will find his enjoyment in purely executive work and, following a well-known trait of human nature, will recoil from any activity of any other character. Hence, his particular type of mind will lead to inhibiting factors which will result in his failure to deal with situations calling for the establishment and maintenance of external coöperation. The administrator who thinks of himself simply as an executive fails to secure and maintain external cooperation because he does not regard it as a part of his duty; the one who has a distinctly executive type of mind, while he may be conscious of his responsibilities, naturally tends to avoid discharging them. With either of these types there is always the danger that the burden of securing and maintaining both external and internal coöperation will be thrown entirely upon members of the staff, thus increasing their administrative responsibility and perhaps preventing them from the proper discharge of their supervisory duties.

Probably one of the most common causes of the failure of the administrator to function in securing and maintaining external coöperation is an overload of detail work. This situation sometimes comes about through conditions beyond his control, and sometimes because he is the kind of an individual who is commonly known as a detail man. Whatever may be the cause, the result is that the administrator finds himself physically and mentally unable to give the necessary time, attention, and thought to the

securing and maintaining of coöperation. An administrator is employed to think rather than to do. Effective thinking can be carried on only when the body is not unduly fatigued and when the mental faculties are alert. Neither of these conditions can exist where an individual has permitted himself to become overburdened with detail. There are many cases where the employment of an assistant at a relatively small salary would result in the freeing of the administrator from an amount of detail work, and where such freedom from detail would produce a gain in the efficiency of the program, the value of which would far exceed the cost of the assistant.

One serious danger is due to the fact that the more a man burdens himself with detail, the more important such detail becomes in his mind, with the final result that he loses all interest or desire to do anything except attend to it. Such a state of mind obviously precludes any attempt to deal with such matters as giving or securing coöperation of any kind.

Many administrators fail to distinguish between activities tending to promote coöperation and another class of activities which, while perfectly legitimate, promote publicity rather than any form of intelligent coöperation. The seeking of publicity is always legitimate when its objective is to give desirable promotion to the program and not to the individual. Under such conditions there often exists a vague idea that such publicity actually promotes purposeful coöperation, which, as a matter of fact, it seldom, if ever, does. At its best, general publicity can only arouse a certain amount of interest of a very general character, which, unless effectively followed up, seldom results in any purposeful action of any kind.

Up to the present time, the discussion has dealt with attitudes of mind or with situations which have resulted in a failure on the part of the administrator to secure and maintain purposeful external coöperation. There are, however, many administrators who are fully alive to their responsibilities but who feel that they are unable to discharge them because they do not know how to proceed.

Potentially coöperative groups, such as were listed in a preceding paragraph in this chapter, are composed of individuals who have

had various kinds of education and experience. The more widely their education and experience differ from those of the administrator, the more uncertain he feels as to the manner of approaching them, and the more he doubts his ability to deal with them effectively. The average educational administrator feels fairly well at home with an educational group. Their experiences and their education have been similar to his own. He has confidence in his ability to deal with them in an efficient way. When, however, he finds it necessary to deal with a totally different group, such as a labor group, or with a lay group, he realizes that their point of view is entirely different, that their past experiences are entirely different, and that their ways of thinking are different, and he feels a very decided lack of confidence in his ability to work with them successfully. The same is true in the case of an administrator whose past experience has been largely of an occupational character. Such a man is at home with an occupational group, such as the labor group, and feels very uncertain as to his ability to deal with a group composed of highly educated people of the academic type, such as college professors. A similar situation exists where an academically trained administrator is called upon to deal with a group of farmers, or where the head of the home economics department of a university is called upon to deal with a group of housewives from a tenement district.

All situations of this type involve the very general human characteristic of being afraid of people that one does not know well. The teacher is afraid of the parent; the parent is afraid of the teacher; the teacher is afraid of the employer or of the representative of labor; and the labor representative and employer are equally afraid of the teacher. The wider the range of sociological experience possessed by the administrator of vocational education the less likely he is to suffer from this particular inhibiting factor in securing and promoting coöperation from groups representing the various parties at interest.

Reasons for Lack of Internal Coöperation. — In a general way, all that has been said about the failure of administrators to deal adequately with the question of securing and maintaining external coöperation is equally true with regard to securing and maintaining internal coöperation. In all probability there is a greater

failure to secure internal coöperation, on account of the greater difficulties involved.

As in the case of external coöperation, there are a number of reasons which would appear to justify this statement. For example, many administrators do not know their own organizations, in the sense that they have been unable to establish, or for some other reason have not established, such human relations with their staff members as will enable them to observe the presence or absence of inter-staff coöperation, or to determine the actual attitudes of mind of staff members toward offering or accepting coöperation. Hence, in many cases, so far as the coöperative problem is concerned, the administrator is, either from choice or necessity, "blind." To make matters worse, in many cases he thinks that he knows the true situation, when, as a matter of fact, it is quite different from that which he thinks exists.

There are a number of factors which help to bring about this situation. In the first place, the official position of any administrator tends, to a certain extent, to set him apart from his assistants. In the second place, the difference in function acts as an inhibiting factor. In the third place, in an organization of any size, unless he makes a special effort to do so, an administrator does not frequently come in contact with members of his staff under conditions that enable him to determine just where and when opportunities for coöperation exist. For the same reasons, it is still more difficult in many cases for him to determine the actual attitudes of his staff members toward the whole question of internal coöperation. The administrator frequently moves in a different social circle, belongs to a different club, has different interests, all of which affect the nature of the problem.

In the fourth place, if staff meetings are held they are usually devoted to matters of an administrative character which are discussed in a more or less formal way. Such formal conditions do not make for the securing of a true insight into attitudes of mind with regard to coöperation.

A certain type of administrator hesitates and seems to be afraid to attempt to secure desirable coöperative relations among the members of his staff, either because he is of the military type of mind or because he is actually afraid that any attempt to encourage

coöperation will result in the breaking down of his organization. If he is of the military type of mind, his conception of coöperation is the full discharge of duty, and he does not desire the kind of coöperation that lies beyond " the line of duty " in his organization. He only desires an accurate and complete discharge of delegated responsibilities, and he is afraid that any attempts at coöperation will result in an overlapping and a consequent confusion as to these specifically delegated responsibilities.

Another type of administrator seems to have no conception of the value of coöperation among the members of his staff or of the assistance that he himself may obtain through the coöperation of members of the staff. This is particularly likely to happen in the case of the detail man, because he has so overburdened himself with details that he has no time to give to the consideration of possibilities for coöperation, or to promoting such coöperation. It may be also pointed out that, not only in vocational education, but also in commercial and industrial organizations, specific ways in which internal coöperation can function have not been very thoroughly developed, and no great amount of information on this point is at present available.

The Failure to Secure Coöperation. — The previous discussion has been made somewhat elaborate in the hope that it will bring very forcibly to the mind of the reader the value of coöperation to any program of vocational education, the particular responsibilities in this connection which the administrator alone can discharge, and certain fundamental reasons why, in many cases, these responsibilities are either neglected or are only partially discharged. There is always a reason for an administrator's failure to secure adequate coöperation. While the reasons will vary in detail, they can very generally be referred to a small number of type situations. Disregarding the inhibiting factors which arise from mental attitudes or individual idiosyncrasies, such as the military type of mind, and assuming that the administrator does fully appreciate the importance of securing cooperation, both externally and internally, the following situations are probably very typical:

1. The administrator appreciates the value of coöperation but neglects to make any effort to secure it.

2. The administrator regards coöperation only as a "life-saver."
3. The administrator knows how to secure coöperation, but is afraid to take any active steps to secure it.
4. The administrator does not know how to secure coöperation.
5. The administrator thinks he knows how to secure coöperation, but as a matter of fact, does not, and he therefore may resort to incorrect methods in his attempt to secure it.
6. The administrator is prevented from taking active steps towards securing coöperation by a policy on the part of his superior authority.

Under the conditions assumed to exist, neglect to take active steps to secure coöperation is almost always due to an incorrect evaluation of the various responsibilities which go with the administrative job. For example, the necessity of finding some way by which one teacher can do the work of two may loom up so large in the mind of an administrator that all thoughts of cooperation become buried in his consciousness. The remedy for this situation is an analysis, by the administrator, of his various responsibilities, and a dispassionate evaluation of them in terms of their relative importance to his program.

As an illustration of a typical situation, let us assume that the supervisor of trade and industrial education appears before his administrator with a statement that some consideration has been given to the establishment of a coöperative apprenticeship program in the building trades; that negotiations have arrived at a point where arrangements have been made for a meeting of representatives of employers and labor organizations; that the presence of the administrator is, in his opinion, necessary, because questions will probably be asked and points raised which can only be answered authoritatively by the administrator himself. The administrator has been greatly interested in the reorganization of the schedule of a vocational school, and, in his mind, the completion of the new schedule is of paramount interest. He, therefore, informs the supervisor that he has some very important work under way which will prevent his being able to attend the meeting, and advises him to go ahead and do the best he can. The im-

portance to the administrator's program of taking advantage of this opportunity for securing coöperation, as compared with the importance of getting the schedule completed, will be obvious to the reader.

Many administrators regard coöperation as a last resort, or as something to be sought only after they are in difficulties. Where this type of administrator has provided an advisory committee, he usually regards it as an agency which will be asked to function only when he needs it to get him out of trouble after he has already gotten in. This type of administrator fails to realize the importance of the old saying, " In time of peace, prepare for war," in that he fails to appreciate the need for building up contact groups before trouble has occurred. Even where his sole motive is to use the contact group when in trouble, he fails to appreciate the far greater value which these groups can render on an improvement and constructive basis.

The administrator who does not know how to secure coöperation must, of course, resort to the obvious expedient of finding out how to secure it. The administrator who is afraid to try to secure coöperation can only learn by doing. In this situation, the best thing that can be done is to secure an opportunity to make contact with an individual who, in some field of human endeavor, has shown himself able to secure coöperation, and proceed on the same principle as an apprentice teacher, who is given an opportunity to observe how a competent teacher carries on his instruction. Where the administrator is prevented by the policy of his superior authority from making any attempt to secure cooperation, the only suggestion to be made is that he endeavor to change that policy. Most boards of education are not fundamentally opposed to securing coöperation from outside agencies, but in many cases their members have not appreciated the importance of the service which can be rendered by coöperative groups. The obvious value of such coöperation is much greater in the field of vocational education than it is in general education, because an isolated program in general education can make fairly satisfactory progress without the coöperation of outside agencies, but a program of vocational education can not successfully progress without such coöperation.

Changes of policy are not infrequently brought about through the introduction of new members on the board of education who can be regarded as representatives of various parties in interest. In many cases, where the board has never given much thought to this subject, it is not a very difficult matter for the administrator to get various board members to realize the value of securing and maintaining coöperation, and to see that the possibilities of securing it are vitally necessary to the vocational program. Where the administrator himself believes this to be true, he will not, as a rule, have very much difficulty in securing a change of policy on the part of the superior authority.

Maintaining Coöperation. — A fact which is often lost sight of is that any coöperative organization tends to disintegrate as soon as it ceases to function. The building up of a coöperative organization of any kind offers less difficulty than the subsequent holding together of that organization. Illustrations of this fact are matters of almost daily observation. For example, suppose that it is desired to secure certain legislation or to prevent the enactment of certain legislation. Groups are organized, the interest of their members is promoted in various ways, and the groups are reorganized into what may be called a machine. As soon as the objective has been attained this machine begins to break up. The interests of various groups in the organization become centered in other problems; and, if it becomes necessary at some later time to renew the campaign, the whole process of organization must be repeated. It is the recognition of this fact which has led, in so many cases, to the employment by organizations of professional employees whose duty it is to keep interest aroused and to keep the organization together.

The average educational administrator frequently fails to take cognizance of this tendency to disintegrate, and assumes that, because at a certain time he had a strong backing from certain agencies, he can rely upon this backing at any future time whenever he may need it. He can not depend upon the assistance of coöperative groups unless he utilizes the coöperative relationships continuously. Where the administrator looks upon the coöperative group merely as "a life saver," he will find that the necessary coöperation is not available when he needs it.

Coöperation with Service Clubs. — The general objectives of civic and service clubs are social service and the general improvement of civic conditions. Their memberships are heterogeneous, as distinguished from those of associations based upon common occupational interests, such as an Architectural Institute or the National Education Association. Hence, to a considerable extent, civic and service clubs represent in their membership a wider range of contact points than the great majority of organizations with which the administrator of vocational education must deal. The membership of these clubs is largely composed of successful professional and business men. They are in a position to exert a very considerable influence over civic affairs. If the active cooperative interest of these clubs can be secured and maintained, they can constitute a very important coöperative agent in the promotion of programs of vocational education.

The first step in availing oneself of the coöperation of a service club is usually to secure an opportunity to inform the club members at one of their meetings with regard to some feature of the vocational program in which their interest as citizens may be aroused. This is essentially an opportunity to secure appreciation and to carry on a certain amount of educational work with the members of the organization.

When the appreciation has been secured and interest has been aroused, the situation can generally be capitalized either by requesting specific assistance from individual members, or by securing the appointment of a committee. It has now become quite customary for a club of this kind to include in its organization a permanent committee on education. These committees are often made up of individuals who are particularly interested in the improvement of the educational program of the community. If such a committee can be interested in that part of the community program which deals with vocational education or in securing the introduction of a vocational program in the community, it may prove to be an exceedingly valuable coöperative agency.

As has just been intimated, these clubs can be of value to the administrator in either one of two ways: first, by rendering cooperative assistance in dealing with specific situations as they may arise; and, second, through the continuous work of a committee on

education. In many cases, these clubs lay out a yearly program for their various activities, and in a number of cases where such programs have included the introduction of vocational education or the improvement of a program already in operation, they have given continuous coöperative assistance to the administrator.

Coöperation with Labor Organizations. — The labor organization is the type of group from which it is easiest to secure cooperation, and of which many administrators are most reluctant to ask it. The interest of organized labor in vocational education is continuous. Organized labor was largely responsible for the enactment of legislation making possible both National and State programs of vocational education. With the enactment of this legislation its interest has not ceased but has continued to be active in support of genuine programs of vocational education. This continuous interest in the vocational program makes these organizations always coöperative in their attitude toward publicly controlled vocational education.

Like the service clubs, labor organizations represent a considerable portion of the population of a community, and can give the same kind of general coöperation as has been discussed in the previous paragraph, through the backing and promotion of a program of vocational education. Aside from this general cooperative capacity, organized labor represents the occupationally competent group, for trade and industrial vocational education, from which must be secured the specifically functioning content and occupationally competent instructors. This particular group also controls, to a considerable extent, the entrance of trainees into the practice of the occupations for which they have been trained. Organized labor or groups of employees therefore have a very direct interest in the development of efficient courses of vocational education, and this interest leads them to adopt cooperative attitudes. Moreover, they occupy a distinctly strategic position with regard to certain efficiency factors in the development of vocational programs. For these reasons they are entitled to an invitation to coöperate, and without their coöperation no vocational program can be fairly efficient.

The active coöperation of groups of employees is secured in essentially the same manner as that of the service clubs. It

should be recognized, however, since employee organizations have a very direct interest in the vocational program, whereas the interest of the service clubs is more altruistic in character, that organizations of workers are more likely to regard with suspicion initial requests for coöperation. Such a request may be regarded as " a wooden horse," in the sense that members of the organization are likely to suspect some ulterior or indirect motive, on the part of the administrator, which is not to their advantage. The way to dissipate this suspicion, where it exists, is to carry on the negotiations through perfectly fair dealing and through full and frank discussions of all questions. In the experience of the authors, whenever labor organizations have been approached upon this frank and straightforward basis, little or no difficulty has been experienced in securing active and continuous coöperation.

Coöperation with Occupational Organizations. — In the fields of agricultural and commercial education, there are certain organizations that are potentially capable of rendering coöperative assistance through programs in these respective fields. In agricultural education, the grange, experiment stations, farm bureaus, and the United States Department of Agriculture may be mentioned as the more prominent types. Various women's organizations are potentially capable of rendering the same service in the field of home economics. In commercial education there are various organizations, such as associations of certified public accountants, of office managers, and national associations, such as the National Association of Retail Grocers, Laundryowners' National Association, the National Retail Dry Goods Association, and local chambers of commerce, all of which can render effective coöperative service, in some cases by providing instructional content and occupationally competent instructors, and in other cases by rendering coöperation of a more general character.

In trade and industrial education, since the employer constitutes one of the parties in interest, the coöperation of employers' associations is extremely desirable. As a rule, it is more difficult to secure coöperation from these associations than from organizations of employees.

The tendency of many employers who are interested in training largely centers around the promotion of training programs under

their own control, and, to a certain extent, they are suspicious of any form of publicly controlled vocational education. Nevertheless, they constitute an occupational group from which can be secured functioning information, functioning content, and valuable assistance in securing occupationally competent instructors and in the employment of the product of the vocational program.

Somewhat distinct from either employers' or employees' associations are organizations of professional workers. Engineering organizations are better equipped to render effective technical coöperation than are other organizations of the same general type. At present such organizations are manifesting a considerable interest in vocational education of less than college grade. They are not difficult to approach, and the chief problem is to show them how they can contribute effectively. The solution of this problem offers no particular difficulty to the administrator who is in a position to advise them as to how they can assist in the program.

Coöperation with Educational Organizations. — Vocational education is one phase of the educational program, which theoretically makes for effective social adjustment. Theoretically, therefore, the group capable of rendering the greatest amount of coöperation, and with whom the closest coöperative relationships should be established, is the group of those engaged in general education. The need for close coöperation is evident. The difficulty in securing this close coöperation constitutes a very serious problem for the administrator of vocational education. Unfortunately, much misunderstanding exists between those who work in the general education field and those who work in the vocational education field, and this misunderstanding must be cleared up before any effective coöperation can be carried on between the two groups. It is encouraging to note that much progress along this line has been made during the past ten years. Nevertheless, the present situation still offers a number of inhibiting factors which prevent thorough and close coöperation.

Certain of these inhibiting factors will unquestionably be brought to the attention of the administrator of vocational education. For example, there is in many communities a feeling on the part of the general educational group that vocational courses are primarily intended for those who are of a low grade of mentality.

This idea, of course, is due to a total failure to understand the true social function of vocational education. In other cases, this attitude is also undoubtedly due to the desire on the part of teachers and administrators to be relieved of pupils who fail to meet the standards and tests of the general schools, while at the same time keeping these pupils within the public school system. Another reason for this attitude is the well-known fact that the best known methods for educating the mentally deficient are through the use of manipulative activities.

It is evident that effective coöperation from the general educational group can not be secured until such misunderstandings are cleared away. This places upon the shoulders of the vocational administrator a very heavy responsibility for educating the general educational group with regard to the true functions of vocational education. The difference between vocational education and other forms of practical activity, such as manual training, industrial arts, and special classes for the mentally deficient, must be clearly appreciated by the general educational group before any administrator of vocational education can attempt to secure the kind of coöperation which that group alone is capable of rendering.

From educational groups having the proper amount of information and appreciation, very definite coöperation and assistance can be secured. Among the more important kinds of assistance are (1) the direction into vocational courses of those boys and girls who should take such courses, the direction being made without prejudice as between vocational courses and other courses; (2) assistance through the activities of such prevocational agencies as may be included in the educational program; and (3) the elimination of attitudes on the part of teachers and administrators which tend to cause them to disparage any form of manual work as compared with commercial or professional occupations.

The administrator of vocational education who can succeed in securing the whole-hearted, intelligent coöperation of the general educational group will have a type of assistance which at present is possibly more difficult to secure than any other, but which at the same time is vitally important to the social efficiency of his program.

The emphasis which has been placed, in the foregoing dis-

cussion, upon the responsibility of the administrator for securing and maintaining the right kind of coöperation with potentially coöperative groups, is due to the fact that the administrator, rather than the supervisor, is responsible for establishing and maintaining working conditions which will permit of effective attainment of the objectives of the vocational program. This emphasis upon the responsibility of the administrator accounts for the difference between the treatment of this phase of coöperation in the present book and the treatment given to the same subject in the companion volume on "The Supervision of Vocational Education."

Coöperation with Miscellaneous Groups and with Individuals. — The discussion up to the present time has dealt entirely with what may be called permanent groups. In addition, many situations will arise where very effective coöperation can be secured from what may be termed casual groups, or even from individuals. These groups frequently are of a temporary character, such as an incidental conference group dealing with some specific subject. In other cases certain key individuals constitute a more or less unorganized group. The general procedure with such individuals and groups is essentially similar to the procedure to be followed with organized groups, except that organized groups almost always have an official representative who can act as a liaison officer.

Securing and Maintaining Internal Coöperation. — In securing and maintaining internal coöperation, the administrator must act in a double capacity, in that he acts both as an administrator and as a supervisor. As an administrator, his responsibility is to create and maintain situations favorable to the development of the highest degree of coöperation that is possible. As a supervisor, he will use the same methods that any supervisor would use in securing and maintaining such coöperation. Since these methods are reasonably well known and have been somewhat fully discussed in the companion volume on "The Supervision of Vocational Education," their discussion is not included here.*

The problem of the administrator, therefore, is to use, not his authority, but his ability, to change and modify situations as a

* See Chapter XVIII, "The Supervision of Vocational Education," by Wright and Allen, John Wiley and Sons, 1926.

means of securing and maintaining internal coöperation. When he becomes aware of a situation in which coöperation is not existent, or is unsatisfactory, he will find it possible in many cases to effect changes that will bring about improved coöperative relations. For example, it is a well-known fact that where two individuals are working on their respective jobs, the conditions making for coöperation are not as good as they will be after these two individuals have both worked on the same job, and have become personally acquainted with each other. A situation of this kind can often be brought about by an administrator. This is particularly true where there is a lack of coöperation between equals. In a similar way, there may be a lack of coöperation with the superior, shown in the manner of dealing with matters which have been delegated by him, or in procrastination in dealing with such matters. Under such conditions it is often possible, without any exercise of authority, to get the individual to realize the embarrassment he is causing the superior by such procrastination.

As an organization becomes more highly specialized, there is a recognized tendency for the specialist to lose sight of what may be called the job of the organization as a whole. This tendency is fairly well illustrated in the non-coöperative attitude of many teachers of special subjects in the high schools, and under the present-day tendency toward departmentalization it is probably becoming more pronounced. As a counteracting influence, it is quite possible for an administrator to bring about situations in which members of the staff are required to give more thought and attention to the social job or the responsibilities of the organization as a whole. Opportunities can often be found for assigning, to different specialists on a staff, temporary responsibilities which lie outside of their respective specialties, such as a financial responsibility connected with the program as a whole, or a general administrative problem. Any assignment of this kind, which takes the individual out of his own special environment, will tend to direct his thought and attention toward the larger job of which his immediate job is only a part, and will tend to promote an attitude more favorable to coöperation with the administrator and the superior authority.

Conferences of the entire staff organization, at which problems

involving the entire program of the organization are freely discussed, can be used to distinct advantage. In the past, in too many cases, staff conferences have been devoted entirely to routine matters of administration, and for convenience of distinction the type of conference mentioned here may be designated as the "school of instruction." Another device which can be used to advantage in many cases is the making of assignments of such a character that different members of the organization must necessarily participate and contribute to the successful working out of the problem. Such assignments can be arranged so that the contributors are of equal rank, or so that the groups are composed of individuals of different ranks, possibly including the administrator himself.

Reference has already been made to the fact that specialization creates an attitude unfavorable to coöperation. There always remains to the administrator the possibility of reducing the degree of functionalization of his organization, if he feels that the loss due to decreased specialization will be more than offset by the gain brought about by increased coöperation.

Formal Coöperation. — In many cases, under temporary or permanent direction of some superior authority, it is necessary for an administrator to coöperate with other administrators, or with other superior authorities. This statement is illustrated by the relationship which exists between the Director of the Federal Board for Vocational Education, the various State boards for vocational education, and the State directors of vocational education. The same relationship exists between the State directors of vocational education, the local superintendents of schools, and the local boards of education, and, in a slightly different way, between the local director of vocational education and the principals of vocational schools. So far as these relationships involve the discharge of definitely assigned responsibilities, they involve no element of coöperation as coöperation has been defined in this book. Beyond this limitation, however, there are countless opportunities for giving and receiving coöperation to the mutual advantage of both parties.

Where good coöperative relationships exist, friction is avoided, and, in many cases, the responsibilities of all parties can be dis-

charged to a better advantage and more effectively. For example, in many States, the official contact between the administrator of the State department of vocational education and the local superintendent of schools can be made directly. In his official capacity, the State administrator would not go beyond the office of the local administrator as his contact official. A situation of this kind, however, would not promote the most effective working conditions. Under good coöperative relationships, such a condition would not exist. The securing and maintaining of such coöperative relationships will depend to a very great degree, however, upon a proper recognition of official channels of communication.

Efficiency Values of Coöperation. — It is very generally recognized in the business world that effective coöperation is one of the most important efficiency factors in reducing production cost, and this statement will apply equally well in the case of an educational organization. This fact is probably not as thoroughly and widely recognized in educational work as it is in the business world, since cost in business is largely computable in terms of dollars and cents, and social costs due to inefficient educational work are not computable in the same way.

In vocational education, as has been pointed out in this chapter, coöperation is absolutely essential to the success of the program; and the coöperation must be more varied in kind and must be secured from a greater variety of groups than is the case in any other form of education. It is becoming more and more fully recognized by students of vocational education that this particular type of education is, in fact, a coöperative enterprise between the parties in interest, and that unless it is so regarded both in theory and in practice, it can not efficiently render the social service for which it is designed. This being true, there is probably no more vital problem with which both the administrator and the supervisor must concern themselves than the promotion and maintenance of effective coöperative relationship, both internal and external to the organization.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Suggest a number of additional situations which might be brought about by an administrator and which will supplement those mentioned in the discussion of methods of securing and maintaining internal coöperation.

2. One of the duties of regional agents of the Federal Board for Vocational Education is to make the annual field audit of State accounts. Is this audit an example of coöperation between the Federal Board for Vocational Education and the State Board for Vocational Education? Give reasons for your answer.

3. Do you, or do you not, agree with the statement made in the text that coöperation does not begin until all specifically delegated responsibilities have been discharged? Give reasons for your answer.

4. If the audit of State accounts, as made by an agent of the Federal Board for Vocational Education, should disclose certain irregular uses of Federal funds and if the irregularity should be later adjusted by correspondence between the Federal Board for Vocational Education and the State Board for Vocational Education, would this be a case of coöperation, or merely a discharge of formal duties?

5. Assuming that you are acting as an administrator, prepare an outline of a plan for securing coöperation from (*a*) coöperative marketing associations, (*b*) a service club, or (*c*) a parent-teachers' association. Include in this plan the following: (*a*) a statement of the particular coöperation which you hope to secure, and (*b*) a statement of the method which you would endeavor to follow to secure the coöperation.

6. Develop more fully the reasons why it is more difficult to secure coöperation from an employers' group than it is from a group of employees.

7. Make a list of the ways in which an occupational organization can cooperate with an administrator of vocational education.

8. Make a corresponding list of ways in which an administrator of vocational education can coöperate with occupational groups.

9. As a local administrator, which would you consider the more important: to secure the coöperation of teachers in the elementary schools and in the high schools, or to secure the intelligent coöperation of vocational counselors, where they have been provided in the organization? Give reasons for your answer.

10. As an administrator you have opportunities to meet in conference with principals of high schools and you are desirous of securing their intelligent coöperation with regard to directing into the vocational program boys and girls who should, for economic reasons or on account of their interests and aptitudes, pursue such a program. Outline the points of the plan which you would follow in taking advantage of these opportunities for conference, in order to secure an intelligent and helpful coöperation.

11. Make a list of the ways in which a vocational school can coöperate with a high school.

12. Who has the greater responsibility for securing and maintaining cooperation, the administrator or the supervisor? Give reasons for your answer.

13. Assuming that you are a State director of vocational education, and that you wish to establish the most effective coöperative relationships between vocational agricultural teachers and county agents, outline the plan which you would pursue, and give reasons for the particular plan which you have outlined.

14. As the local director of vocational education, how would you proceed to secure coöperation between the employers, representatives of organized labor, and a local supervisor of trade and industrial education, in the establishment of a program for apprenticeship education in the building trades.

15. Make a list of reasons why coöperation can not be secured through the exercise of authority.

16. Prepare a list of such cases as occur to you out of your own experience where lack of coöperation has in your opinion been due to a failure on the part of the administrator to give proper attention to this question.

CHAPTER XIX

FORMULATING AND ADMINISTERING NEW POLICIES

Preliminary. — One important group of duties imposed upon the administrator consists of those relating to policies, rulings, and interpretations. This group of duties or responsibilities exists wherever an administrative function enters into any pay roll job. In the field of vocational education, from the pay roll standpoint, administrators, supervisors, and instructors, all, to a greater or less extent, exercise administrative functions. The difference is more in the range and scope of these functions than in the nature of the function itself. While the discussions in this chapter are more specifically directed toward the responsibilities of the administrator, nevertheless they apply in practice to practically all pay roll jobs included in a vocational educational organization.

What Is a Policy? — For purposes of discussion, a policy may be defined as the general attitude of mind toward a given situation, which determines the general character of rulings and interpretations. The formulation of a policy, therefore, precedes any rulings, interpretations, or decisions with regard to specific situations which may be affected by that policy. Subsidiary policies may be derived from general policies. These subsidiary policies must be assumed to be in accord with the general policy from which they are derived. A policy may or may not be expressed in a formal statement, and it is conceivable that a board of education may adopt, by tacit consent, certain policies which will never appear in a formal statement. An example of such action may be found in the attitude of some boards of education toward the employment of teachers of certain nationalities, or in their willingness or unwillingness to employ married women as teachers. Usually, in such cases, there is no formal statement of policy, but there is what may be called a general understanding that when the administrator recommends a teacher for appointment, or when he

selects a given individual for recommendation, he will make his selection and recommendation in accordance with this unwritten policy.

As distinguished from unofficial policies, discussed in the previous paragraph, there are many policies that are officially expressed. For example, a board of education may announce a policy and establish a salary schedule by which salary increases are based upon certain accumulations of college credits. Another example is the announced policy, in force in a certain State, of not using Federal funds for the salaries of teachers of classes in vocational home economics or in evening schools. In another State the State board for vocational education has adopted a policy of using Federal funds only for the promotion of new schools, thus leaving the subsidizing of established schools entirely to State and local funds.

A policy, therefore, may be either official or unofficial. In so far as it has to do with the program for vocational education and affects the work of the administrator, it makes no difference whether a policy is regarded as official or unofficial. In either case it is necessary that any subsidiary policies which the administrator may adopt should conform to the general policy of his superior authority. Any other course of action on the part of the administrator would inevitably result in a hopeless state of friction and confusion.

The Dual Responsibility of an Administrator. — In the exercise of his administrative function an administrator has to discharge certain responsibilities in which he acts as an executive under the provisions of the laws affecting his program. Since these responsibilities of an executive character are specific and made to meet local situations they are not included in the discussions in this chapter.

Policies and Rulings. — A ruling may be regarded as a formal application of an official policy to a specific situation, and should be clearly distinguished from a policy. Rulings differ from policies in several ways. The formulation of a policy must always precede the making of any ruling. Policies are general, and rulings are made with regard to specific situations or cases. The formulation of a policy involves no direct exercise of authority, whereas the

exercise of authority is involved whenever a ruling is made. Policies are established, whereas rulings are made in accordance with a recognized policy.

Administrative authority to initiate policies is derived from delegated functions, and policies thus set up must not conflict with general policies established by the superior authority. While rulings are commonly made administratively in any field which may be covered by the general administrative function, under normal conditions the superior authority looks to the administrator to carry out, through his rulings and decisions or subsidiary policies, such general policies as the superior authority may have formally or informally established.

So long as the policy-establishing body is functioning entirely within its own organization, it is not particularly important whether the policy is made officially or unofficially, since it affects individuals with whom the policy-establishing body has direct official contacts. On the other hand, policies that affect individuals responsible to other administrative organizations must be formally set up and expressed in definite official rulings, and thereafter under similar conditions subsequent decisions must be based upon these established rulings.

The Development of a Policy. — The general process which is carried through in the development of a policy is a managerial problem involving the usual six steps. These steps are as follows:

1. The assembling of facts.
2. The selection of functioning facts.
3. The evaluation of the facts selected as functioning.
4. The making of a decision.
5. The formulation of a plan.
6. The execution of the plan, which in this case involves the making of a ruling or the rendering of a decision.

As between the administrator and the superior authority, under normal conditions, the administrator assembles functioning facts and submits them to the superior authority for evaluation, and for the making of a decision. The administrator then formulates a plan for carrying the decision into effect, and submits it to the superior authority for approval in the form of a proposed ruling.

When formally approved by the superior authority, the ruling becomes official.

In the case of the formulation of policies subsidiary to general policies or in rulings or decisions based upon a recognized policy of an official or unofficial character, the only difference is that all six steps in the managerial process are carried through by the person performing the administrative function without regard to the particular pay roll job that he may hold, which may be that of a supervisor or of an instructor.

The Value of Policies. — The establishment of definite policies is of value to the administrator of vocational education in providing uniformity of administration and in relieving him of the continual process of thinking through every problem in terms of the six steps given on page 353. If these six steps have once been carefully and thoroughly carried through, it follows that a decision has been reached and an official policy has been established. As other similar situations occur, the administrator has merely the problem of evaluating the situation against the official policy. In other words, a recognized policy, under these conditions, becomes an efficient labor-saving device, not only for the administrator but for the authority that originally established the policy.

The official establishment of a policy is also a labor-saving device, as it enables the administrator to delegate many problems to minor administrative officials and in the same way enables the superior authority to delegate responsibilities to the administrator and to other members of the executive staff.

Where such authority, based upon a carefully formulated policy, is delegated, much friction and confusion will be avoided. As a result of such a procedure, when similar problems are handled by various individuals they are all treated in a uniform manner. This uniformity is highly desirable in all administrative work and is promoted by the promulgation of official rulings.

As a general rule, advantages can be gained without corresponding losses. In proportion as all official acts are based upon official rulings, there is a tendency to direct all official procedure toward what is commonly described as " red tape " administration. One of the problems of administrators and of superior authorities is to strike the correct balance between too many rulings and not

enough rulings, as based upon accepted policies, in order to avoid a too rigid administration on the one hand and a chaotic situation on the other. As a general rule, it is safe to defer the making of official rulings until a specific situation has arisen which makes such rulings desirable or necessary.

A policy can be carried out through educational procedures. A ruling, when once made, must be enforced. The administrative procedure, therefore, changes from an educational process to one of law enforcement. It is a general principle of sociology that legislation enacted in advance of crystallized public opinion which represents a majority of those affected can not be successfully enforced. Experience goes to show that this same principle likewise holds in problems involving the desirability or undesirability of making official rulings. If such rulings are made before a majority of those who are affected are educated up to the appreciation level so as to insure intelligent coöperation, the advisability of making the ruling is extremely doubtful.

Desirable and Undesirable Policies. — As a rule, the idea that leads to the formulation of a policy either arises in the mind of the administrator or is brought to his attention by his superior authority or by a member of his staff, although it is conceivable that in certain cases the fundamental idea may originate entirely outside of the organization. It is as likely that in the discharge of his responsibility for the efficiency of his program, an administrator will be called upon to combat some proposal involving the establishment of a certain policy as that he will be called upon to promote the establishment of a new policy. It is a well-recognized fact that boards of education are continually subjected to pressure to establish policies in conformity with the ideas of various groups of citizens. However well-meaning these groups may be, they are usually technically incompetent to grasp the full effect of what they propose upon the program for which the administrator is responsible, and they are equally incapable of determining whether or not the objective which they have in mind can be attained at all through educational procedures carried on under school conditions.

In determining whether his duty lies in promoting or in combating a given proposal, an administrator should consider whether

the proposition can be classified as just or unjust, lawful or unlawful, logical or absurd, useful or useless, and possible or impossible of accomplishment. In all probability a considerable number of the ordinary proposals which he may have to consider can be classified as unjust, unlawful, absurd, useless, or impossible. A very important problem for the administrator, therefore, in determining his attitude, is to "separate the wheat from the chaff." Many people are unaware that programs of vocational education are conducted under the general provisions of specific legislative acts. Hence, they see no reason why some particular idea which they have originated can not be incorporated into the program through official rulings, whether or not its incorporation falls within the terms of the legislation.

Policies and Legal Responsibilities. — An administrator has to deal with many situations that involve a responsibility imposed upon him by law. In many cases these responsibilities are specific in their character and he has no object except to enforce the law. The discharge of these enforcement responsibilities is distinct from the question of policies and rulings, and the two groups of duties should not be confused.

When Policies Should Be Established. — There are certain conditions under which it is obvious that there is a necessity for the establishment of an official policy. In general, such situations will arise when it is necessary to make an official response to a specific question, where it is necessary to substitute a new policy for an old policy, or when conditions have changed to such an extent that an old policy requires modifications. Except under one of these three conditions, it is doubtful whether the substitution of an official for an unofficial policy is desirable. It is well for an administrator to consider whether either one of these three conditions exists before he recommends the establishment of an official policy.

Formulating Policies. — Under the procedure already described, it usually becomes the duty of the administrator to formulate policies in such a way that there will be as little misunderstanding as possible in putting any subsequent ruling into effect. In order that this may be done, it is fundamentally necessary that the objective to be attained by the policy be absolutely clear in the

mind of the administrator, and that it be clearly stated when the ruling is officially approved. Careful consideration should be given to all factors that affect the carrying out of a policy, and the statement of the policy should be so written as to avoid difficulties that may arise owing to the operation of these factors when the policy is carried out in practice. These factors may be local pride, local initiative, standard practices already established or policies already in being.

It is generally considered that any formulation of general or official policies should be in broad, general terms rather than in very detailed and specific language. The language in which a policy is stated should be concise and clear; all special conditions, if there are any, should be stated; and, if an accompanying ruling is in any way affected by legal limitations, these legal limitations should be specifically included.

Two Methods of Procedure. — In formulating a policy there are two distinct administrative procedures which are commonly followed. According to the first procedure the administrator, working entirely alone, formulates a statement of the proposed policy. According to the second procedure he formulates it in conference with members of his staff or with members of other contact groups who are either in a position to criticize and contribute to the formulation of the statement or who will later be affected by the policy when adopted. The second plan is much more efficient than the first, and is well illustrated by the procedure which has been consistently followed by the Federal Board for Vocational Education: Immediately after the organization of the board in August, 1917, it became necessary to establish a series of official policies, which would later be administered through a corresponding series of official rulings. These policies were discussed and developed in a series of conferences which were attended by State superintendents of public instruction from the various States and by members of the Federal Board for Vocational Education, together with its administrative staff. In this series of coöperative conferences and in later deliberations the Federal Board for Vocational Education and its staff progressed through the entire six managerial steps given on page 353. It is probably due to the fact that this coöperative procedure was followed that

very few changes in the policies of the board have been found desirable or necessary during the years which have followed.

Getting Policies Approved. — When an administrator desires to secure the approval of certain policies by his superior authority it is important (1) that he be equipped with all functioning information which will enable him to point out conclusively why the policy is necessary, (2) that any statement which he submits be so written that it can be easily and clearly understood, and (3) that he be in a position to answer clearly any questions as to how the policy will affect the program, or how it will affect other policies already in existence.

It may also become the duty of the administrator to secure the coöperation of contact groups and individuals in the carrying out of the policy. In this case the same general principles will hold. It is not likely that the new policy will be remarkably successful unless it has been thoroughly discussed and is clearly understood, and unless the reasons for establishing it have been made entirely clear, and its effects upon the program thoroughly outlined.

Uses and Abuses of Policies. — Like any other administrative device, policies have their uses and their abuses. It is an abuse to misquote a policy even if such a misquotation relieves a troublesome situation for the time being. Another danger against which an administrator needs to be on his guard is that of permitting his policy to be used as a " cat's paw." Where the carrying out of policies is delegated to others, there is an altogether too common tendency to use a higher authority as an excuse for avoiding difficult and embarrassing situations. This procedure is illustrated, for example, where a local director endeavors to get the State department to act, in a purely local situation, in order to relieve himself of the administrative responsibility.

In most cases the administrator who has the confidence of his board can secure approval for almost any policy which he may recommend. With his detailed knowledge of situations, which the members of his board naturally do not possess, he has an opportunity to secure the establishment of policies whose results may not be in accord with the expectations of the members of the board. Such a procedure ultimately results in trouble for the board and then in trouble for the administrator, since he will have lost the

confidence of the members of the board, which he previously possessed.

An administrator should remember that his superior administrative authority or board is always ultimately responsible. He should not undertake to secure the approval of policies which simply represent his own individual idiosyncracies, and whose approval he may secure from his board because of their confidence in him, their ignorance of the true situation, or their lack of interest. Under such conditions there is danger that members of the board may approve policies without really being parties to the act, although they may have mechanically given their approval. Such a condition is fraught with all kinds of dangers and should be avoided. It is a wise procedure to make the board, in legal phrase, "*particeps criminis*," with regard to any policy which may be officially established.

Illustrations of Policies and Rulings. — For the purpose of illustrating the foregoing discussion of policies and rulings, there have been included in the text certain official statements of adopted policies relating to vocational education and the rulings that were made in order to carry them out.

Policy of the California State Board for Vocational Education, Relating to Part-Time General Continuation Classes in Civic and Vocational Subjects. — In general, all persons residing in California are required to attend full-time schools until they are 16 years of age. A small number of persons over 14 years of age, whose earnings are necessary for their own support, are granted permits to work during school hours.

The compulsory part-time act passed by the California legislature and approved by the Governor on May 27, 1919, requires that the high school board of each high school district wherein there were enrolled in the regular day classes of the high schools of said district during the school year next preceding, fifty or more persons living within a radius of three miles of a high school located in said district, must establish and maintain special part-time classes which shall provide at least four sixty-minute hours of instruction per week for all persons in the district who are over 14 and under 18 years of age, and who are not in attendance upon full-time public or private day schools for four or more sixty-minute hours per week.

With certain exemptions based upon good cause, said act in effect requires that on and after July 1, 1921, all persons who have passed their sixteenth year will be required to attend full-time or part-time classes until they are 18 years of age. The minimum attendance required of each pupil for each year is four hours per week for at least thirty-six weeks.

The problem of part-time continuation education in California is, therefore, largely limited to persons over 16 years of age, and since local school authorities are compelled to maintain classes for these persons, and since said persons are compelled to attend the same, this type of education can be genuinely promoted by applying the Federal and State vocational education funds only to desired instruction that local school authorities are not compelled by law to maintain.

Effective part-time education for minors must provide for the correlation of employment, school, home, and other outside activities. With this in mind, the California State Board of Education will apply such funds as are available for part-time general continuation work to reimbursement for the services of persons acting as coördinators of the employment, school, home, and other experiences of the pupils enrolled in the classes.

Policy of the California State Board for Vocational Education Relating to Vocational Courses in Agriculture. — The State board of education is of the opinion that the first step necessary in the promotion of vocational agricultural education in California is the development in the secondary schools of a proper type of course, and a satisfactory method of instruction in the subject.

" In carrying out this policy the board desires to coöperate with local school authorities in the establishment of a limited number of Federal and State aided four-year courses,— these courses to be well distributed geographically throughout the agricultural regions of the State.

" In selecting the location for a course the board will take into consideration the agricultural possibilities of the community, the size and population of the high school district, the attitude of the school authorities and the people of the community toward the work, and the order in which satisfactory applications are filed in Sacramento.

" The board will aim to authorize no more courses for any given year than may be aided in full in the amounts specified below.

" Schools are expected to maintain only a one-year course at first, after which the other years should be added just as soon as a sufficient number of prepared pupils desire the work.

" Until further notice high school districts that maintain *standard* vocational courses in agriculture in one or more high schools will be annually reimbursed by the State board of education as follows:

1. For instruction provided by teachers satisfactory to the State department of vocational education who have secured the required units of credit for courses taken in the special classes for vocational teachers of agriculture maintained by the University of California in coöperation with the State board of education under the provisions of State board Bulletin No. 23-A, or by teachers who have equivalent special qualifications, as determined by the state department of vocational education —*

* School authorities are urged to consider the factor of special preparation when fixing the compensation of teachers of applied and supplemental subjects.

First teacher unit of instruction so provided, not to exceed $1,150
Second teacher unit of instruction so provided, not to exceed 800
Third teacher unit of instruction so provided, not to exceed 600
Fourth teacher unit of instruction so provided, not to exceed 400

2. For instruction provided by teachers who have not had the special training specified under 1 above, but who are otherwise satisfactory to the State department of vocational education —

First teacher unit of instruction so provided, not to exceed $850
Second teacher unit of instruction so provided, not to exceed 600
Third teacher unit of instruction so provided, not to exceed 400
Fourth teacher unit of instruction so provided, not to exceed 200

Provided, that the board will in no instance reimburse any such district in a sum which shall exceed one-half of the amount paid as compensation for instruction in subjects required as a part of the course by the State board of education."

Policy and Ruling of the Federal Board for Vocational Education, Relating to the Use of Federal Teacher-Training Funds for Local Supervision.* — The improvement of teachers in service is the most important immediate problem in the field of teacher training. This is particularly true in the case of part-time and evening school-teachers. The difficulty under present teacher-training plans to render this service in an efficient manner has caused the Federal board to extend the use of teacher-training funds to provide for this important phase of teacher training more directly than heretofore. Since local supervisors of vocational subjects should be directly responsible for the success of the local program for vocational education and the efficiency of the teachers under their supervision, they are the logical persons to carry on informal specialized professional improvement work with their own teachers. Therefore, the Federal board has ruled that —

Beginning July 1, 1926, Federal teacher-training funds may also be used in the reimbursement of salaries only (except as provided for local supervisors of agriculture) of qualified local supervisors of agricultural, trade, home economics, and industrial subjects, under the following conditions:

1. That a general plan for local supervision be set up by the State board and approved by the Federal board.
2. That minimum qualifications for local supervisors† for whose salaries Federal funds are to be used in part, be set up by the

* Approved December 17, 1925.

† In the field of agricultural education the term " local supervisor " is interpreted to include not only a county supervisor but also one employed by the State board whose duties as set up in the State plan are to render specific aid toward the improvement of teachers in service.

State board and approved by the Federal board as part of the State plan.

3. That the State board assume the responsibility of approving or disapproving each year the character and efficiency of the work done by the local supervisors for whose salaries Federal funds are to be used.
4. That reimbursement from teacher-training funds for the salaries of local supervisors of vocational education be determined on the basis of the proportion of time which the local supervisor devotes to supervision for the professional improvement of teachers of vocational classes reimbursable under the provisions of the State plan.

Note. — Federal teacher-training funds may not be used as reimbursement for any portion of the local supervisor's working time which is devoted to routine field or office work of an administrative nature, or to the supervision or professional improvement of teachers of industrial arts, household arts, general agriculture, manual training, domestic science, prevocational work in junior high schools, vocational guidance, boys' and girls' club work, or other activities of a nonvocational nature.

The statement of the California State board with reference to the general continuation school represents its policy in the promotion of this particular type of school. It does not appear from the statement that any formal ruling was made as to how the policy would be enforced. The statement of policy relating to the promotion of vocational courses in agriculture, however, is followed by a definite ruling relating to reimbursements made to these schools for salaries of teachers. In the first instance, the board is free to modify or change its policy and to adopt it to unusual situations, while in the second case the administrator is responsible for enforcing the rulings relating to salaries of teachers.

The third illustration, or the policy of the Federal Board for Vocational Education, is carried through both the statement of the policy and the formulation and adoption of a definite ruling. It represents the culmination of much thinking and discussion of the problem of improving vocational education, as developed by a conference procedure. After the birth of the idea, the collection of information, and the selection of functioning facts, the proposal was presented before a meeting of the National Association of State Directors and the facts evaluated. This group then adopted

a resolution asking the Federal Board for Vocational Education to adopt the policy and make the necessary rulings for its enforcement by the States.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. As the administrator of vocational education, you conceive the idea of establishing the policy of employing only instructors who are members of labor unions. You propose to secure the approval of this policy by your superior authority. How would you proceed?

2. As an administrator, you are desirous of securing the approval of a policy by which only experienced farmers will be employed as agricultural instructors. Outline the procedure which you would follow in presenting your proposal to your superior authority.

3. Assume that there is a policy now in existence to the effect that only college graduates may be employed as teachers of vocational home economics classes. As an administrator of vocational education, you are convinced that teachers of certain evening classes should be mature women of considerable practical experience. You desire to secure a modification of the official policy such as will enable these teachers to be permanently certificated, instead of being carried on temporary appointment as is now being done. In presenting your proposal to your board, what procedure would you follow?

4. Your board has adopted a policy to the effect that all classes in related subjects must be taught by instructors possessing adequate occupational experience and must be taught in classes segregated according to the character of the occupations taught. It has become your duty to embody this policy in a proposed official ruling. Write out the ruling as you would present it to your board for adoption.

5. Discuss the relative advantages and disadvantages of the two methods of developing and formulating a statement of policy.

6. Of the various steps that are carried through in the establishment of a policy, which is the most important from the standpoint of securing policies that will function to the best advantage?

7. Prepare a detailed list of the advantages of making the board "*particeps criminis*" to the establishment of a policy. Include as many as you can.

8. Make a list of the dangers which confront an administrator in securing the approval of a policy to which the members of his board were not actual parties.

9. Criticize the samples of official rulings given in the text, from the standpoint of the various points discussed in this chapter.

10. What is the difference between a policy and a ruling?

11. What is the distinction between an administrator's decision and an administrative ruling?

12. Under what conditions are interpretations called for and under what conditions are decisions required?

CHAPTER XX

PUBLICITY

Preliminary. — In the past the traditional attitude of educators has been opposed to what may be called "advertising." The educator has regarded himself as a member of a professional group whose ethics prohibited the use of modern selling methods. Only recently have the members of this group become interested in the problem of advertising and selling their professional products. Even at the present time, although there are various activities in the educational field that may be classed as attempts to secure publicity, it is doubtful whether these activities are actually based upon selling objectives or whether they generally constitute attempts to combat public criticism or to secure coöperation in the maintenance of the program in its present form.

However this may be, it is evident that an administrator of vocational education must concern himself with the selling of his program, partly because the program is new, partly because it involves many types of organizations which are quite distinct from those of the general school, and largely because the success or failure of the program is dependent upon the coöperation of the parties in interest.

The successful administrator of vocational education must, therefore, abandon much of the traditional retiring attitude and must frankly face the fact that he has a sales proposition on his hands. For the reasons just stated, he must give the same attention to publicity as would the chief administrator of a business that sells some other form of service to a community.

Steps in Advertising. — Any business is dependent upon the degree to which the group that it is organized to serve takes advantage of its service. With the single exception of a case where people are compelled to take advantage of the service, such service will be patronized to the extent to which potential customers know the character of the service and how they can take advantage

of it. Unfortunately, many people, on their own initiative, will not even make an effort to ascertain what agencies are available that could render them effective service. One dominant purpose of any advertising agency is to create an attitude of mind which will lead people to ascertain in what way the advertised service can benefit them, and the procedure by which they can take advantage of it.

As a result of the recognition of this common trait of human psychology, the process of securing a customer has been divided into four steps. These four steps are commonly expressed as follows:

1. The attraction of attention.
2. The conversion of attention into interest.
3. The utilization of interest to secure appreciation.
4. The utilization of appreciation to secure the desired action.

Illustrations of the carrying out of these four steps can be found in the procedure followed by a good salesman or in the utilization of selling devices. The average advertising card in the street car is generally considered valuable in proportion as it attracts attention and arouses some degree of interest. Such devices as the use of a slogan with one word phonetically or deliberately misspelled, prize contests for a new trade term, or the use of some striking picture, are simply intended to attract attention. The carrying through of the other steps is left to other agencies, such as the newspaper advertisement or the individual salesman.

Objectives of Publicity. — Where publicity is connected with a program of vocational education, it is obvious that all four of the above steps must be carried through, the customer, in this case, being the prospective individual who can be served by that vocational program. In some way his attention must be attracted, his interest must be aroused, he must be given appreciation of the value of the service to him; in this case the desired action consists in his actually enrolling as a student. Frequently it is equally necessary to go through the same steps wherever the coöperation of a group of employees is desired. This coöperation may be necessary in order to secure the employment of those individuals who have taken advantage of the vocational program.

Evidently, if those who are connected with the vocational pro-

gram rely upon the righteousness of their cause, no matter how valuable the program may be, but a very small proportion of the group to be reached will take advantage of the service. It has been a general experience in vocational education that unless proper and effective means are taken to carry the advertising procedure through all four of the phases given above, the program falls far short of rendering the community service which it should render.

In this connection it is necessary to remember that practically everybody has been served in some way by the general educational program, either voluntarily or involuntarily. Hence, the existence of the program and a general knowledge of the character of its services are matters of common knowledge. It is not necessary for the local high school to advertise the fact that it exists, nor is it particularly necessary for it to advertise the opportunities which it has to offer. In the first place, under the operation of the compulsory attendance laws, most individuals are forced to recognize its existence.

Except in a very few cases, the vocational program, up to the present time, has not involved an expenditure likely to attract public attention; nor are vocational activities, as a rule, so housed that the buildings devoted to them can be regarded as sources of local pride. This is particularly true in trade and industrial education; and, since vocational home economics and vocational agricultural education are usually housed within some high school building, even they are not connected in any distinctive way in the public minds with the particular social service which they render. This means that the vocational program is at a distinct disadvantage with regard to what may be called automatic advertising, and this disadvantage must be compensated for by more aggressive publicity on the part of those responsible for the development of this form of educational social service.

What is Publicity? — For the purpose of the various discussions in this chapter, publicity is considered as being any activity carried on by anyone connected with a vocational educational program for the purpose of attracting attention, creating interest, developing appreciation, or securing a greater utilization of the services offered by the program.

From the foregoing definition it is evident that there may be four distinct major objectives in connection with any particular type of publicity work, and that the degree to which these various objectives are attained affects the community conditions which lead to a greater or less utilization of the service.

Since an administrator is responsible for working conditions, he has very direct responsibilities for publicity. Broadly speaking, therefore, the administrator is ultimately responsible for the results of any publicity activities on his own part or on the part of anyone else who officially represents the program. He must, therefore, determine whether any given proposal for publicity work is desirable or undesirable, and whether it is likely to be efficient or inefficient. Publicity may be regarded as desirable if it is of such a character as to promote the objective from the standpoint of benefit to the program. Otherwise it is undesirable. Publicity may be regarded as efficient if the probable return will justify the expenditure of time, money, thought, and energy.

Desirable and Undesirable Publicity. — The question of what constitutes desirable or undesirable publicity involves a consideration of the following factors:

1. The character of the objective.
2. The probability that the objective can be attained by the proposed form of publicity.
3. The particular conditions existing at the time that the publicity is to be carried on.

In general, desirable publicity includes any information as to what service is available, how it can be secured, and where it can be secured, and any evidence of the value of the service to the community, or of an increasing appreciation of the value of the service to the community or to individuals. The use of desirable publicity under the wrong conditions, however, may defeat the very purpose for which the activity is carried on. Examples of such a situation might be the premature release of information with regard to some proposed new development at a time when the making public of that information would set up conditions which would make it more difficult of achievement. Another undesirable situation arises when publicity is given to a plan before the plan

has assumed a final form. In this case the public becomes accustomed to the plan before it has taken final form, and then finds it necessary to become accustomed to substitute plans or modifications of the original plan. Another highly undesirable form of publicity is that which precipitates a situation prematurely. There is such a thing as selling a product before the production department is in a position to make deliveries.

Undesirable publicity, as noted in the foregoing paragraph, is any form of publicity that is likely to react unfavorably upon the program. It includes all forms of misinformation, such as the making of promises that can not be fulfilled, and all forms of publicity into which personalities enter, or which imply in any way a reflection upon other educational programs. It is equally true that any kind of publicity that may cause embarrassment to others, especially if they are members of the staff, or of coöperative groups, is highly undesirable.

One of the serious problems of any administrator of vocational education is that of keeping " in the middle of the road " between the various parties in interest. Any form of publicity tending to give the impression that the program is being conducted for the benefit of any special interests can always be regarded as being undesirable.

In many cases publicity can only be recognized as undesirable if careful consideration is given to what may be called its deferred effects. In many cases the immediate effects of a piece of publicity work may appear desirable, while the deferred effects may be very undesirable.

Legitimate and Illegitimate Publicity. — There are certain ethical standards that are generally recognized by the great majority of people. Wherever these general ethical standards are violated in attempts to secure publicity, the results in the long run are detrimental to the cause with which the publicity is connected. Any form of publicity that, immediately or in its deferred effects, violates this general public standard with regard to " fair play " and the " square deal " can properly be classified as illegitimate. This is true, for example, of publicity that is to the advantage of the individual rather than to the advantage of the job or to the program as a whole. If the public gets the idea that the indi-

vidual is using his job primarily for his own professional or individual advantage, he loses community respect, and, unfortunately, this usually results in a corresponding lowering of the community opinion of the program which he officially represents.

Publicity that in any way violates a confidence or lowers the public standing of any coöperating body or agency, or of any member of the administrative staff, is equally illegitimate.

Points of View. — Any form of publicity involves the coöperation of three agencies: first, the author of the publicity; second, the agency utilized for publicity; and third, the public, or the group which the publicity is intended to serve. Where public speaking or direct publication is utilized, only the author and the public are concerned. Where organized news agencies, such as the news press or standard publications, are utilized, the situation is somewhat different, owing to the conditions and procedures established by such standard agencies.

An administrator is usually an educational technician. His normal tendency is to see his objectives in educational terms and to present them as a technician would present them to other technicians. As against this point of view, the press desires news that will increase business, which, as they know, means news presented in a popular style. The public desires interesting reading of a non-technical character, so presented that one can get the general substance of the news by scanning the high points or headlines. The press is interested only in the viewpoint of the public. The administrator is interested only in promoting his program. Therefore, we have two radically divergent points of view, in which the press has the advantage, since it can accept or reject any material which the administrator may submit for publication. In taking this point of view the press is perfectly justified, since it is qualified to judge as to the public point of view, and its success depends upon its ability to meet that point of view. If an administrator desires to make use of non-technical publications, such as newspapers or popular magazines, he must defer to the point of view of the press, and either learn how to prepare his material in conformity with such standards or secure the assistance of someone who can edit his material in an acceptable form. Hence, any administrator will find it advisable to include

representatives of the press in his contact groups, and to secure from them the details of those standards which he must meet if he proposes to utilize the press as an agency for publicity.

Agencies for Securing Publicity. — The ordinary agencies of which an administrator of vocational education can take advantage in an attempt to secure publicity are as follows:

1. Public speaking.
2. The use of the radio.
3. The use of visual devices.
4. The daily press.
5. Publications, both technical and non-technical.
6. Miscellaneous devices, such as bulletins, advertisement, and posters.

It may be noted that certain of these agencies appeal entirely to the eye, and others entirely to the ear. The most efficient publicity agency evidently would be one that combined both appeals.

Relative Value of Different Agencies. — On the basis of their experience, the authors have indicated in Table No. 29 their estimates of the relative value of these various publicity agencies in terms of the four advertising steps and of value to the vocational program. As in a number of other cases in this book, the table is included mainly for its suggestive value, and the particular ratings given should not be construed by the reader as having

TABLE No. 29

RELATIVE VALUE OF VARIOUS PUBLICITY AGENCIES

Publicity Agencies	Steps in Securing Publicity			
	Imparting Information	Securing Interest	Securing Appreciation	Getting Action
Public speaking	7	10	8	10
Radio	8	5	5	3
Visual publicity devices	5	8	10	3
The press	10	5	8	7
Publications	2	5	6	4
Other devices	1	4	1	3

actual quantitative values. The table does, however, show very clearly that there are considerable variations in the value of different agencies in terms of the various objectives.

Public Speaking. — Public speaking is effective in proportion as the speaker recognizes the characteristics of the various groups before which he has occasion to appear. The principal groups before which an administrator of vocational education may have occasion to appear are (1) groups of business men, (2) groups of educators, (3) groups of parents, (4) groups of teachers, (5) various civic bodies, (6) various social organizations, (7) groups of workers, (8) groups of employers, (9) groups of adolescent or school children, (10) legislative bodies, and (11) large meetings representing the general public.

Each of these groups offers its own special characteristics, its own group psychology, its own special interests, and its own point of view, all of which naturally affect the selection of the subject and the treatment of that subject. Administrators of vocational education vary in their ability to deal with these groups, some being able to speak effectively before any or all of the groups, while others can speak effectively only to a few. Most administrators can deal effectively with educational groups. Many can deal effectively with a group composed of the general public, since the objective here is seldom more than that of arousing a general appreciation. Probably the most difficult groups to deal with successfully on a speaking basis, especially where the objective is to secure some action, are groups of employers and groups of employees. It should be noted that two factors enter into this problem, the first factor being the character of the objective, as indicated in Table No. 29, the second being the character of the special group interests and the group characteristics of the particular audience.

Making Engagements to Speak. — Opportunities for public speaking come to an administrator in two different ways. He may seek invitations or they may come to him unsolicited. Where the administrator has a definite objective to attain, he will probably obtain better results by seeking invitations to speak. The ease with which he can secure them will depend upon his standing in the community and the range or character of his contact groups.

Effective Speaking. — The great majority of technicians in any field are normally more or less ineffective speakers when addressing any audience other than a technical group in their own field. They almost invariably attempt to present too many ideas, frequently talk over the heads of their audiences, and hence fail in attaining their objectives. A certain well-known speaker who is able to accomplish his objective with almost any type of audience succeeds largely because he incorporates very few distinctly different ideas in any one speech, since he has learned that the average audience can only assimilate a very few separate ideas at one time. The few ideas on which he bases his speech are closely related to each other and are elaborated by many simple illustrations drawn from the experiences of everyday life. While oratorical ability no doubt plays a considerable part in his success, it is fundamentally due to his capacity to appeal to the sympathies of his audience and to his ability in expressing technical ideas in terms of everyday life experiences.

Use of the Radio. — The use of the radio as an agency of publicity for vocational education is just beginning to be appreciated. Wherever it is used, certain limitations must be borne in mind. The time of the speaker is always limited, and, therefore, every word must count. The character of the audience is entirely unknown, hence it must be assumed to represent the general public. This is one of the disadvantages of the use of the radio. A certain special technique is required in speaking into the microphone, since the voice must not be too loud or too low, and the rate of speaking must not be too rapid or too slow for a clear enunciation. Until a person has become accustomed to radio speaking, there is the usual embarrassment which always occurs when one undertakes to think under novel conditions. It may be well to draw attention to the fact that any kind of publicity secured through a radio presentation is likely to be received by more interested people if notice of the speaking engagement is given in advance through the daily press.

Visual Publicity Devices. — When well selected, visual publicity devices are probably more effective than oral presentation. In general, such devices will be in the form of charts, diagrams, or pictures. It is generally recognized that the most desirable

visual publicity devices are those that involve motion. Thus, a succession of lantern slides appearing automatically on a screen, one after the other, will attract and hold attention better than a series of photographs, and a moving picture film is still better than a series of slides.

Wherever slides or films are utilized, they will be much more effective if they tell a story. In the case of slides, such a story may be represented by a series of episodes leading up to a final situation and this, of course, can be still better accomplished through the use of a film. There are now on the market a number of devices for automatic projection, both of photographs and of diagrams, and also for moving picture films. Use has also been made, to a certain extent, of the cartoon and of the symbolic drawing or painting. Charts and diagrams rarely serve their purpose except with a group that is more or less technically equipped. The choice between specific visual devices should be made with regard to the characteristics of the group to be reached. A very large number of statistical devices for representing quantitative or qualitative relations have been developed and are readily accessible to anyone interested in this phase of publicity. Probably the best examples of all kinds of graphical representation of a statistical character will be found in the book on "The War with Germany," by Col. Leonard P. Ayres, published by the War Department, Washington, D. C. Much valuable information on promoting vocational education through publicity methods will be found in Bulletin No. 97, "Promoting Vocational Education in Agriculture," by Paul W. Chapman, issued by the Federal Board for Vocational Education, Washington, D. C., May, 1925. Although this bulletin refers specifically to the promotion of vocational education in agriculture, the general suggestions and illustrations are equally applicable to any form of vocational education.

The Vocational Program and the Press. — The problem of utilizing the press as a publicity agency is a very difficult one for any administrator of an educational program, because newspaper men have not sensed the importance of educational news and school men have not known how to bring it properly to the attention of the journalists. The administrator of vocational education is at some advantage, because his program deals with matters

which are somewhat novel to the minds of the general public and which at least theoretically come nearer to touching the actual live interests of large groups in the community.

Granting this advantage, the administrator of vocational education still has on his hands a somewhat difficult problem, since his material must be presented in such a way that a newspaper would characterize it as "news."

What Is Newspaper News? — A newspaper always evaluates any material which it may secure for publication from the standpoint of its value in attracting attention, or in arousing the interest of the reader, and not primarily from the standpoint of its intrinsic value to the social life of the community or to any technical group. If the editor of a newspaper believes that a sufficiently large group of readers will read an item or article, he will usually print it, provided the article is prepared in the proper form.

In general, news means, to a newspaper, something unusual or something that would be considered unusual by a large group of readers. It has been defined as "current information of the broadest personal interest." If an individual does something which he would not normally be expected to do, for example, if a student in vocational agriculture wins a prize in a judging contest, or if a group of high school senior girls make their own graduation dresses, it is regarded as news. Both of these facts constitute news, since they represent something that the public does not ordinarily expect.

Information which constitutes news is interpreted differently by different types of newspapers. The kind of an article that would be news to a newspaper circulating in an agricultural community would not be news to a large metropolitan daily, and the kind that might be news to a local daily in a city of 300,000 population, might not be considered as news by a weekly circulating in a sparsely settled agricultural community. The kind of material that would be regarded as news by a special publication catering to a special group would not be news to a daily or weekly newspaper.

The success of an administrator in securing the coöperation of the press will depend very largely upon his knowing the character of the publication and upon his knowing what constitutes news for that particular publicity agency.

Using the Press for Personal Advantage. — The ethics of practically every newspaper office is based upon the conception that the function of the press is to furnish news to the public and not primarily to further the personal advantage of any individual, at least in so far as the news columns are concerned, whatever may be true of the editorial page. Whenever it becomes evident to the editor of a newspaper that a public official is directing his publicity toward his own personal advantage, the official is discredited to that extent and it becomes more difficult for him to utilize the columns of that particular press agency. This is perhaps more true in educational work, which is always assumed by the public to be non-political in its social service. Hence, it should be emphasized that, from the standpoint of the press, publicity for a vocational educational program and publicity for the director of that program are entirely separate and distinct.

To a certain extent the personal element, as distinguished from personal publicity, unquestionably has a news value. For example, the personal element can properly be brought into press interviews, but only to the extent that it is news or that it adds validity to news. For instance, newspapers prefer to publish statements or announcements directly upon the authority of a responsible official. The news value of a statement is greater if it has been made directly by a responsible individual in the organization. Such use of personal names is necessary and is expected.

A certain kind of personal publicity is always obtained in connection with newspaper interviews. Interviews require emphasis upon personality, provided the interviewer confines himself to the subject and does not wander off into collateral discussions of purely personal matters.

The use of personal names and official titles may be regarded as entirely appropriate in the case of news items covering the administrative or supervisory activities of members of the staff. A limited amount of well-balanced personal publicity of this kind is practically required by the public with regard to the administrator and the various members of the staff.

Beyond these three kinds of publicity, any official connected with a vocational educational program should hesitate to go. Deliberately to seek personal publicity for one's own sake, to at-

tempt to be sensational, to endeavor to intrude the personal note into impersonal views, is to destroy the effectiveness of the whole publicity venture. If personalities are made too prominent, public attention is distracted from the very objective for which the publicity is desired.

The Selection of News Material. — A common difficulty of beginners in the preparation of newspaper publicity material is the inability to popularize what they have to say. The difficulty is greater if the individual is a specialist or a technician in any particular field. This fact explains why there are so many "interpreters" who stand between the public, on the one hand, and the scientist or specialist, on the other. The scientist knows the facts but can not write them in such a way that the public can understand them. The interpreter utilizes the same facts, but expresses them in a way that the public can understand.

Since, as a rule, the director of vocational education has no interpreter, he must acquire the habit of interpreting for himself. In acquiring this habit, one of the first things that he must learn to do is to distinguish between what is news to the public and what he, as a technician in vocational education, may consider as news. He must learn to select, from all that he knows about his activities, those few facts that appeal to the popular interest or imagination. Everything else must be kept out of the presentation, or it will lose its news value.

The general public is not interested in technical administrative problems, even though the educational specialist may think that it should be. The administrator and the professional group to which he belongs may be extremely interested in purely professional discussions, but such discussions do not interest the public to the slightest degree. Educational officials frequently attempt to inflict upon the public long treatises or statements containing two or three thousand words of involved matter, and do not realize that the editor is really protecting them against themselves when he consigns such contributions to the waste-paper basket.

News Resources. — One of the important sources from which publicity material may be drawn is an annual report. The official report, of itself, does not constitute news. The individual who

has the knack of seeing news values will find in an annual report, no matter how dry it may be, opportunities for securing desirable publicity material, provided he is able to set it up in proper form, so that it can qualify as news. For example, the annual report may contain a statistical table showing the income from supervised agricultural projects in various States. As a table this information has no news value; but if concealed within these statistics there happens to be the fact that a number of boys have successfully raised cotton under boll-weevil conditions in a section where the regular cotton growers have failed under the same conditions, this fact would have a news value because it represents the unusual. It is unusual because the public does not expect a boy to be able to do that which his parent has not been able to do. Increasing enrollment, as such, does not appeal to the popular imagination at all. If, however, the increased enrollment means that a group of " little mothers " have been reached and successfully assisted in discharging their responsibilities, this again would have news value, because, in the first place, the public at large has little or no conception of the fact that many 13 and 14-year-old girls are obliged to take entire charge of their younger brothers and sisters, and this in itself would be regarded as unusual. Moreover, the fact that instruction was being given to this group in a subject which the public in no way associates with education would increase the news value. As another example, the report on evening schools might show that certain classes in retail selling have been organized. A report of this fact would not interest the public to the slightest degree; but if it could be shown that these classes consisted of salesgirls who had spent their classroom time in discussing how to deal with customers more courteously and efficiently, or that certain of these classes consisted of mature retail grocers who had come together for the purpose of discussing ways and means of increasing their sales, these facts would constitute news.

In utilizing his annual report, it is well for the administrator to remember that the publicity effect gains in proportion as he feeds out such information in small items at successive intervals.

In addition to the annual report, there are continually occurring during the year incidents or special developments which appeal

either to interest or to the interest in the unusual. Such an incident might be an agricultural school exhibit in a county fair; it might be some piece of work developed to meet the special needs of some particular group or of those engaged in some particular occupation. For example, the public would be unlikely to expect a foremanship training program to be carried on in connection with the coal-mining industry, and a popularly worded description of such a program would arouse interest, because from the standpoint of the public it is unusual. The same statement might be made in the case of a plan for placing competent instructors in a railroad shop for the instruction of apprentices, instead of having the apprentices come to the school building. This is unusual, since the public always thinks of the learner as going to a school building rather than of the teacher as going to the place where the learner works.

As another example of a new development in vocational education that would have a news value because it is unusual, the Southern Pacific Railroad Company recently became interested in the improvement of foremanship. The company fitted up a dining car as a conference room, including the usual equipment necessary for conference work. Arrangements for this conference were made through the coöperation of the State Department of Vocational Education and of the Southern Pacific Railroad Company.

The mere statement of fact given in the foregoing paragraph, with the additional information that twenty-three men attended the conference for a period of sixty hours, whether the statement were carried in the annual report or in a statistical table, would have little or no news value, and if submitted in this form to a newspaper, might under local conditions be given merely a casual news item. When one digs below the surface, however, it is possible to uncover a number of distinct news values, such as those given in Table No. 30.

There are, therefore, two distinct appeals: First, an appeal to the reader's love of the unusual; and second, a suggestion of the importance with which this work is regarded by a large railroad system. Each of these represents a popular appeal if properly written up.

TABLE No. 30

NEWS VALUES IN A NEW DEVELOPMENT

News Values	Why News
1. It deals with the improvement of foremanship.	1. Education to improve foremanship is a new idea to the public.
2. A large railroad system has taken up the improvement of foremanship.	2. The idea that a railroad should go into education is a new idea to the public.
3. A railroad car is used as a meeting place.	3. Using a railroad car for educational work is a novelty to the public.
4. The meeting place can be moved to different points on the railroad system.	4. The idea of a "school room" on wheels, to be hauled about from point to point on a railroad system by a locomotive, is an extremely novel idea to the general public.
5. The meetings were held on a siding in the railroad yard.	5. The idea of educational work being carried on down in the railroad yard is likewise a novel one.
6. The twenty-three men attending the conference represented thirty-five hundred railroad employees.	6. The fact that the men who attended represented such a large number of employees appeals to the American business instinct as meaning that they were very important men.
7. The group included the men who had just finished the construction of the seven largest locomotives on the Southern Pacific system.	7. The idea of the importance of the group is still further increased by a knowledge of the character of the work with which they had been previously intrusted.

The development of any new activity in a local vocational program is almost always a matter of local interest, especially if local residents have any connection with the service rendered by the addition to the program. Such an incident is, however, chiefly of local news value, and the smaller the community the greater the news value of such items. For example, the recent development of a vocational program in the Territory of Hawaii has

required the visit to the Islands of several representatives of the Federal Board for Vocational Education. These visits have been regarded as having considerable news value in the Islands. They would have much less news value in any of the States, and would be of little or no value in the City of Washington.

A situation such as the one just described has certain potential news values. The fact that the visitor is in the community, on public business connected with a local program, has sufficient news value to attract the attention of the press. An occurrence of this kind will naturally resolve itself into one of three possible situations: (1) The visitor may use the opportunity for self-advertising; (2) the local administrator may use the opportunity for the same purpose; or (3) both may coöperate in securing desirable publicity for the promotion of the vocational program. The first two objectives or situations should be classified as attempts to secure illegitimate publicity. The third is the only legitimate use which should be made of such an opportunity. The possibility of securing desirable publicity will depend upon certain facts: (1) The degree to which the local administrator has anticipated the visit, and is prepared to supply the newspapers with prepared statements or news material in some other form; and (2) the degree to which the visiting individual will recognize the situation, and will coöperate with the local administrator.

The visitor is the attraction, or the *open sesame* to publicity. This is his legitimate and proper function. It is not his function to comment upon the local program, but to allow his presence to be used by the local administrator for the purpose of getting into the press the facts which he wishes to present to the public.

If the visitor gets his name in the paper, possibly with his picture, and the same thing happens to the local administrator, this is about as far as individual publicity should go.

It requires considerable tact and alertness on the part of the visitor to coöperate successfully with the local administrator. He is likely to be asked his personal opinion of the local program, a question which he should naturally refer to the local administrator. He may be asked his opinion on local controversial questions which, of course, he should avoid giving. In fact, he may be asked his opinion on any conceivable subject. In the main, he

should avoid such discussions, because they take up time and divert attention from what is much more worth while. Under certain conditions, he may be asked for information with regard to the program which he himself officially represents. This is a perfectly legitimate question, and one that he is at liberty to answer and should answer. The only danger is that by responding to this question at length he may divert the interview from more important publicity for the local program.

As a rule, it is unwise for a visitor in a local community to give any kind of an interview to a representative of the press, except in the presence of representatives of the local program. A local representative should be present in order that the visitor may take advantage of every opportunity to divert questions to him as the representative of the local program and to avoid the appearances of too much self-advertising.

Publicity Releases. — It is customary to give information to the press with the understanding that the information will not be released until a certain date. A confidence of this kind is seldom or never violated. In the case of speeches or meetings, local newspapers always appreciate being furnished in advance with a news release which may consist either of a copy of a manuscript or of excerpts therefrom. In addition to the news material, local newspapers oftentimes are glad to get photographs of the speakers. In the case of meetings, newspapers likewise appreciate being furnished in advance with copies of the program.

Editors of local newspapers should be advised as to the proper time for sending reporters to cover the meeting or conference.

Securing the Coöperation of the Press. — The representative of the press with whom the administrator usually comes in contact is the reporter. Most newspapers in large cities have a reporter specifically assigned to cover the work of public education.

If the administrator deals fairly with the reporter, establishes friendly relationships with him and treats him as an individual in whom confidence can be safely reposed, he will be able to secure reportorial coöperation. In all their experience, the authors have never known of a case where a reporter violated the confidence of the person giving an interview. The administrator should realize, however, that the reporter is paid for getting news. If

he can legitimately aid the reporter in getting news, he will find the reporter and the editor willing to reciprocate.

Preparation of News Articles. — Whenever an administrator finds it necessary to give out written publicity material, the chances of its acceptance will be affected very much by its form. If it is written in such form that the editor can send it directly to the linotype, with comparatively few corrections, he will look upon it with more friendly eyes than if he must take up the time of a member of the staff to rewrite it. Hence, a brief description of the writing of a news story is included here.

There is a more or less fixed form for the news story, from which few papers ever vary. The formula is based upon the theory that the average newspaper reader seldom reads beyond the headlines and the first paragraph unless his interest is aroused. The headlines are written in the office by specialists, and the administrator of vocational education need not concern himself with them. But the first paragraph should be written in the form of a long sentence in which the whole story of the release is told. Thus, a reader who does not wish to read further will have caught all the essentials of the release at a glance. Following this first sentence, the writer should begin over again and tell the story from the beginning, this time in greater detail. If there are phases of the story which are not essential, but which embellish the theme, these phases should be described in separate paragraphs and placed at the end of the main story. This procedure is followed in order that the last paragraph or paragraphs can be eliminated without spoiling the sense of the story, in case the whole is found too long for the available space.

The administrator will probably find it difficult to prepare his material in this form at first, but after a little practice it will become easier. The best suggestion is that he study the columns of his own newspaper from the standpoint of form.

How to Give an Interview. — Whenever a director or other administrator of vocational education is interviewed by a press representative, he will obtain the most satisfactory results by assuming a candid attitude toward the interviewer. Some people assume a reticent and unhelpful attitude when in the presence of a reporter. The result is that the reporter, who is under instruc-

tions from his editor to turn in a certain amount of copy from the assignment, is obliged to over-emphasize and pad the few statements that he can secure. Such publicity is injurious. The reporter should be treated as a friend in whom confidence can be placed. He should be informed on the points that are to be emphasized. He should be made to feel that he is to coöperate with the administrator in building up a story.

When the interview begins it will facilitate matters to allow the reporter to take the lead by asking a series of questions. These questions should be answered candidly. By the time the reporter has exhausted his prepared questions, the one being interviewed will have perceived the gaps in his understanding of the subject. He should then take the lead in the interview and proceed to dictate additional statements of information which the reporter should possess.

When giving out material that is likely to be misinterpreted, it is best to prepare it in written form in advance. For the ordinary run of news, however, the best results will be obtained by the give-and-take method or a personal conversation with the interviewer.

Channels of Publicity. — The daily newspaper has been discussed, almost exclusively, as the publicity medium. In practice it will be found the best channel through which to work. However, there are other media. Also there are several methods of reaching the daily newspaper in addition to direct personal contact. These media and methods include the following:

(1) *Press Syndicates:* News of National or State-wide interest should be given to a releasing syndicate. The Associated Press (morning and evening), the United News (morning), the United Press (evening), the Universal Service (morning), the International News Service (evening), and the Western Newspaper Union, are the leading National syndicates. The Associated Press maintains a State office in every State, to distribute news of State interest to member papers in that State; every member of the Associated Press is also a reporter, and will be glad to transmit local news of National or State importance to the main office. The director of vocational education should establish friendly

relations with the Associated Press and other syndicate representatives in his city and advise them of all news.

(2) *The Sunday Feature:* All newspapers publishing Sunday editions devote space to feature stories. Vocational education is peculiarly adapted to feature treatment. Usually reporters on the staffs of the papers augment their incomes by writing the Sunday features. They will appreciate a suggestion, from the official being interviewed, as to a theme, or his assistance in preparing the feature story. Photographs of the actual work of vocational education should be supplied to illustrate the article. Generally speaking, it should be possible to have at least one illustrated Sunday feature story per year published in each Sunday paper. The advantage of the Sunday feature is that it is written in narrative form and permits of a full discussion of subjects which can not be treated in the news column.

(3) *The Magazine:* In many States and cities there are local magazines which devote themselves to community or State activities. The editors of such magazines should be addressed by correspondence, or visited, and vocational education suggested as the theme for a future article. Frequently the director of vocational education will be asked to write such an article. Directors who possess literary ability can thus often place articles in magazines of National circulation. For such magazines the subject must be discussed in interesting narrative style, with plenty of incident. Trade publications, agricultural publications, and labor publications constitute another field which is open to the administrator in nearly every community. In writing for these news media, the trade, agricultural, or labor phase of the work which the publication serves should be emphasized.

(4) *The Exhibit:* By arranging annual exhibits of the work of the vocational pupils, a local director can create news. Not only will he reach those who attend the exhibit, but the local press will often carry descriptive accounts to the much wider field of the newspaper-reading public. Each different community will present different opportunities along these lines. The exhibit is unquestionably one of the surest methods of arousing public interest.

(5) *The Motion Picture:* Such news-film services as the Pathé News, the International News, and the Fox News have photogra-

phers in each regional division of the country. It is often possible to arrange a film " stunt " for these people, especially if some unusual feature of the work related to topics of current interest can be shown. Thus, during a period of extreme shortage of apprentices in the building trades, which had attracted public attention, one school was successful in putting over a film showing the training of apprentices. If the director can think up some such timely subject, he should notify the headquarters of one of the film companies and ask for a photographer.

Publicity Devices. — It has been customary in connection with educational publicity work to depend upon certain devices, such as bulletins, news-letters, books, articles in magazines, posters, notices, and various other miscellaneous agencies. The administrator of vocational education is chiefly interested in the intrinsic value of these various agencies and devices in securing desirable publicity for various objectives.

Many organizations devote considerable time and effort to the preparation of bulletins, dealing either with administrative questions or with the results of research. Bulletins of either type have no publicity value so far as the general public is concerned, as they are only of interest to co-workers in the same field. News-letters are becoming very common, especially in State departments of vocational education. Their chief value is in promoting organization morale. The writing of books by individuals connected with the organization serves two useful purposes. In the first place, in many cases, the results of research have to be made available in the carrying on of vocational programs, or in educational work connected therewith. It frequently happens that the organization is officially unable, for one reason or another, to develop such material as fully as is desirable. The writing of books by staff members may therefore serve a useful purpose in the promotion of the program. In the second place, it increases the general prestige of the organization, because an output of creditable professional material by members of an organization always increases its standing in the professional world. Work of this kind, however, can not be considered as having any great value in promoting publicity of the type discussed in this chapter.

It is customary to resort, to a considerable extent, to the use

of posters, notices, and circulars. For example, it has been quite customary to distribute posters in industrial plants in connection with evening trade and industrial extension courses. Notices, advertisements, and circulars have been frequently used. It seems to be the consensus of opinion that ordinary notices and circulars have very little publicity value. Apparently, the best advertising agency is, in the language of the retail business man, "the satisfied customer"; that is, a vocational program is built up through the word-of-mouth advertisements of those whom it has efficiently served.

Of the various advertising agencies, probably the small exhibit in the store window is the most efficient. The larger exhibits naturally find their places in expositions. Where such an exhibit is to be used, very careful consideration should be given to getting the value out of it. It is very generally agreed that the ordinary exhibit, consisting of various photographs showing school buildings and classes, has very little advertising value. Pictures should be arranged in a series, each series telling a definite story. A good plan is to build the exhibit around a central idea. For example, the exhibit of the Federal Board for Vocational Education at the Philadelphia Sesquicentennial Exposition was built up around the central idea of the relation of vocational education to the life of the community. This idea was expressed in a large wall painting which showed the typical community with various industrial, commercial, and other activities going on, and with the opportunities offered by the vocational education program shown by figures marching in and out of buildings typifying various kinds of vocational educational service. This general idea of the social function of vocational education was reënforced by a series of slides shown in automatic projectors, each series telling a story and showing certain groups served by the program.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. Out of your own experience, make a list of several different cases which you would classify as undesirable publicity.
2. In the same way, make a list of several cases which you would classify as desirable publicity.
3. You have recently come to a community in an administrative position.

You supply the local papers with your biography and photograph. Is this desirable or undesirable publicity?

4. As an administrator you are desirous of securing publicity to promote the establishment of a part-time apprenticeship program. Set up a two-column table. In the first column list the points that would be of interest to an expert in vocational education. In the second column list the items that have news value and would be of interest to the general public.

5. Prepare an article for a local newspaper, in the form of a news story, relating to the above plan for establishing apprenticeship courses.

6. From the standpoint of general publicity, rate the following:

a. An informal interview with a reporter.
b. A prepared article published in the daily paper.
c. A corresponding article published in an educational publication.
d. The presentation of a plan at a meeting of citizens.

7. Would you consider it desirable for the administrator to take a special training course in public speaking?

8. You are desirous of establishing a plan for an all-day vocational school. Make a statement of the points which you would cover in your method of presentation if you were presenting the plan to:

a. A labor union.
b. A group of vocational counselors.
c. A group of employers.
d. A group of average citizens.

Be prepared to point out the reasons for any variations which you see fit to make in the different presentations.

9. Secure a copy of a report, preferably an annual report of the Federal Board for Vocational Education. Select six items of publicity value which are concealed in the report and analyze their publicity value as was done in Table No. 30, page 379.

10. What should be the characteristics of a good exhibit at (*a*) a county fair, or (*b*) a general popular exposition on a National scale?

11. As the superior administrator, holding some such position as State director of vocational education, you are visiting a local community for the purpose of making a commencement address at the local high school. A representative of the local paper calls upon you and asks you the following questions:

a. How does our local program compare with the local programs in other cities and States?
b. What is your opinion with regard to the advantages and disadvantages of Federal aid for vocational education?
c. Which do you consider to be of the greater importance, general education or vocational education?

d. What is your opinion as to the probable results of the next State election?
e. What is the political situation in the Capitol?
f. What is your opinion with respect to the use of cosmetics by high school girls?

How would you deal with each of these questions, and what would be your reasons for your action, on the assumption that no representative of the local program is present at the interview?

12. How would your manner of dealing with the above questions be affected by the presence of a local administrator or a local supervisor?

13. Evening trade extension classes open on October 14. Would you make any attempt to secure publicity? If not, why not? What would be your reasons for using or not using each of the following?

a. Posters.
b. Circulars.
c. Advertisements in local papers.
d. Descriptive articles of the various courses in the daily press.

14. Make a list of the dangers against which an administrator must guard himself in publicity work.

CHAPTER XXI

THE ADMINISTRATOR AND TEACHER TRAINING

Preliminary. — From the beginning of the agitation for the establishment of a program of vocational education of less than college grade, there has been a recognition of the fact that vocational education differs in many ways from general education, and that therefore the agencies engaged in training teachers for general educational work must modify their objectives and their programs if they propose to prepare teachers to deal efficiently with the objectives of the vocational program. There are two fundamental reasons for this belief. In the first place, the organization, administration, and supervision of the instructional work in vocational education are distinctly different from those of general education, or of such practical activities as have, in the past, been accepted as more or less representing vocational education; the second, and perhaps the more fundamental reason, is the theory, which was accepted very early in the history of vocational education, that vocational instructors should be drawn from the groups of occupationally competent workers, and hence should represent a group quite different from the one that has been regularly coming up through the normal schools and colleges to teach in elementary schools and high schools.

Recognizing this point of view, those who were responsible for framing the National Vocational Education Act very wisely made special provision for the training of vocational teachers, in the form of Federal subsidies for that particular purpose.

The Instructor as the "Key" Man. — It is generally recognized that the factor that makes the difference between good instruction and poor instruction is the teaching ability of the instructor. To this extent there is nothing new in the recognition of the instructor as a key individual who makes or breaks the school program. This has been true for all forms of education ever since organized education first began to be utilized as a tool

for social adjustment. In the case of vocational education, however, the importance of the teacher is emphasized by a variety of circumstances. For example, vocational education must primarily deal with "doing" objectives rather than with those of appreciation or information. It is much easier to give information or to establish a greater or less degree of appreciation than it is to train individuals up to an actual doing level. It is further recognized in vocational education that, since the results of any vocational program are measured in terms of occupational and not of school standards, every individual who is allowed to go through a vocational course must come out of that course fully equipped, on the doing level, to meet the demands of the occupation, job, or group of jobs for which the school undertakes to equip him.

This situation, while it does not change the general acceptance of the importance of the teacher as a key individual in the educational scheme, obviously lays upon him additional responsibilities whose discharge requires corresponding additional ability. Hence, while it is true that the teacher is in a strategic position with reference to the success or failure of any educational program, when the special situation in vocational education is considered, it is found that he is predominantly the key individual who will make or break the program. If he is incompetent either professionally or occupationally, no amount of administrative organization and no amount of supervision will save the program; hence, in vocational education, even more than in general education, the administrator must see that the organization that is utilized for teacher training functions in such a way as to bring occupationally and professionally competent teachers into the vocational program.

The Function of Teacher Training in a Vocational Program. — If the foregoing statements are accepted, it logically follows that the function of teacher training, as far as vocational education is concerned, is to provide teachers who are thoroughly competent to attain the objectives set up in the vocational program. In other words, the function of teacher training is to select, train, and provide, for the operation of the program, those individuals who will actually do the instructing. When this teacher-training function is properly performed, the program will be able to render

the social service for which it has been established. Otherwise, the program will fail to discharge its social function, because, as already stated, the ultimate results depend almost entirely on the competency of the teacher.

The Relation of the Administrator to Teacher-Training Programs. — The responsibilities of the administrator with regard to teacher-training programs are in general exactly the same as his responsibilities in other fields of vocational education. His major and fundamental responsibility, therefore, is to provide working conditions such that effective teacher training can be carried on. Since he must assume the responsibility for setting up the working conditions, it is evident that if these conditions are not as they should be, and as a result the teacher-training program is not efficient, the responsibility for its inefficiency can be laid squarely at the door of the administrator.

In dealing administratively with teacher training, one should recognize, first of all, that it is merely one form of vocational education. Teaching is a gainful occupation. Training for teaching, therefore, is training for a gainful occupation, and, in theory at least, it is on exactly the same basis as training for law, medicine, theology, plumbing, electrical work, farming, home making, or any other particular field of vocational work. It may save the reader some confusion of thought, in the latter part of this chapter, if he stops and considers the full significance of this statement. If teacher training is vocational education, then all the standards that may be applied to vocational courses can properly be applied to teacher-training courses. All of the factors that may be considered in evaluating the efficiency of a vocational course can be similarly applied to a teacher-training course. The qualifications set up for an instructor in vocational education can be similarly applied to the teacher trainer; and, finally, the content embodied in teacher-training courses can be judged by the same standards, as to its functioning or non-functioning character, as would be used in determining the value of the content in any vocational course, such as a course in clothing construction, carpentering, linotype operating, or poultry raising. In other words, the ten efficiency factors given in Table No. 12, on page 201, can also be applied to a teacher-training program.

The *first* fundamental responsibility of an administrator, therefore, is to recognize certain principles by which the ends of vocational education can be served. Among the most important of these is the principle that the persons selected to receive instruction must be able to profit by it. The administrator must recognize the fact that, in order to be efficient, any scheme that he may adopt must make possible the admission of those individuals whose characteristics, interests, and occupational experience are such as will fit them for successful work in vocational education. At the same time, he must see that the organization, whatever it is, excludes those individuals who do not possess those characteristics in a sufficient degree to make probable their success as vocational instructors.

The *second* general responsibility of an administrator is to see that the qualifications of the teacher trainer are such that he can successfully train teachers for vocational education.

The *third* responsibility is to see that the actual training is of such a character as properly to equip the future instructor for the work he has to do. It can not be expected that an administrator will possess the technical knowledge which will enable him to make a close evaluation of the content or methods of training. Such technical knowledge goes with the supervisory function. Consequently, the responsibility of the administrator is to make it possible for the content and the particular training experience to be such as are recommended by the supervisor.

The Administrator, the Supervisor, and the Teacher Trainer. — The supervisor is responsible to the administrator for the efficiency of the program. The success of the program is largely dependent upon the quality of the teachers who actually do the instructional work. Unless the teachers are efficient, the supervisor is in the position of a general manager or superintendent of an industrial plant who has been provided with the most desirable equipment, but who is endeavoring to get out his product with unskilled or undesirable members of an operating force. Hence, the organization, however it may be set up, should be such that the supervisor can assist in the selection of persons to be trained and in determining the character of the content, training experience, and the qualifications of the teacher trainer. The supervisor should not

be placed, by any administrative action, in such a position that he is, on the one hand, held responsible for the efficiency of a program, and, on the other hand, is unable to determine the character and quality of the workers who have to put that program into effect. Such a situation is not in accord with the general theory that authority, direct or delegated, must go with responsibility, and that no responsibility can be properly laid upon any member of an organization unless directly or indirectly he is at the same time given authority to discharge his responsibility efficiently. Whenever this authority is delegated along with the responsibility, the onus of failure to accomplish results must be assumed at the same time.

Organization for Teacher Training. — At the present time, in vocational education, two distinct types of teacher training are recognized: that of preëmployment training and that of professional improvement, or what may be called extension training for teachers. It is necessary for an administrator to provide the necessary working conditions both for the preëmployment training of teachers and for the professional improvement of teachers subsequent to employment, since that responsibility rests upon the administrator rather than upon the supervisor. Administrative action with regard to teacher training will usually call for the organization of the following types of teacher training:

1. An organization for the selection and training of individuals before they become teachers.
2. An organization for the training of teachers who are drawn from occupations for the purpose of giving instruction in extension courses.
3. An organization providing for professional improvement.
4. Where compulsory or voluntary continuation schools are a part of the State plan, an organization for the training and professional improvement of teachers in continuation schools.

The establishment of each of these training functions makes necessary the setting up of a distinct organization, although it must be admitted that at the present time the necessity of doing

this is only beginning to be fully recognized. The setting up of such an organization should include the following steps:

1. The determination of the qualifications of a teacher trainer.
2. The determination of qualifications for admission to the teacher-training course.
3. The determination of the conditions under which the teacher will be approved as an instructor in an approved vocational school.

Qualifications of a Teacher Trainer. — If it be recognized, in teacher training as in other forms of vocational education, that the teacher should be occupationally competent, it becomes obvious that the teacher trainer should himself be a competent teacher. It is difficult to see how anyone who can not teach is in a position to teach others how to teach. It would appear, therefore, that one necessary qualification of a teacher trainer would be successful teaching experience under the same general conditions that his students may expect to meet in their teaching. This means that the agricultural teacher trainer should have actually had successful experience in teaching in a vocational agricultural school; that the trade and industrial teacher trainer should have had a corresponding experience in a trade and industrial school; and that the teacher trainer in home economics should have had a corresponding teaching experience in a home-making school. It is possible, therefore, to set down as one necessary qualification the fact that the teacher trainer, under any administrative organization that may be established, should be able to present evidence of having successfully taught under the same conditions and in the same general field of vocational education in which his students will subsequently be called upon to teach.

It should be noted that an experience in teaching is equivalent to the occupational experience which is required of the vocational instructor. Just as the second main group of assets for the vocational instructor is professional training, so the teacher trainer should be fully equipped with the kind of instructional assets which the vocational teacher actually uses in teaching in the vocational program. For example, a teacher trainer whose familiarity with teaching methods is entirely that of the college is not well

equipped to teach others how to use the methods and devices which are most efficient in vocational education.

As a sample of qualifications for teacher trainers, there is inserted here a copy of a recent ruling issued by the Federal Board for Vocational Education:

Qualifications of Teacher Trainers.* — In view of the great importance of trained teachers and trained supervisors in promoting effective vocational education, the Federal Board for Vocational Education has made studies, extending over the past four years, of the problems which have arisen within the States in connection with the training of teachers in the fields of agricultural, trade, home economics, and industrial education. The results of these studies have made it seem advisable for the Federal board, in discharging the responsibilities placed upon it by the national vocational education act, to consider more effective ways and means for improving the program. In accordance, therefore, with its uniform policy of interpreting the vocational education act in harmony with its language and spirit so as to enable the States to plan their work on the most efficient basis possible the Federal board has adopted the following rulings:

Qualifications of teacher trainers. — Because of its realization of the fact that an adequate supply of efficient teachers of vocational subjects can be developed only by thoroughly competent teacher trainers, whose practical experience, training, and general education have specially qualified them for this highly important work, the Federal board has ruled —

That after June 30, 1926, no Federal teacher-training funds may be used in reimbursement for the salaries of persons who conduct those courses for the training of teachers of vocational subjects which are provided for in paragraphs Nos. 1 to 4, inclusive, question 28, Bulletin No. 1, revised, unless such persons possess the minimum qualifications which shall be set up by the State boards for vocational education and approved by the Federal board.

These minimum qualifications shall cover —

a. Practical working experience.
b. Technical education.
c. General education.
d. Professional education.
e. Teaching experience in approved vocational schools.
f. Supervisory or administrative experience.

This policy of the Federal board shall not be construed as being retroactive in effect, but shall apply to all new appointments or assignments made after June 30, 1926.

* Approved December 17, 1925.

Organization for Teacher Training. — In general, three types of organizations have been developed for teacher training. These types may be designated as follows:

1. Teacher training conducted by an institution to which this function has been delegated by the State board for vocational education.
2. Teacher-training courses conducted directly from the State office by members of the staff of the State board of education.
3. Teacher-training courses conducted by local supervisors or directors.

Each of these three typical organizations has been worked out in practice in various States, both for preëmployment teacher training and, to some extent, for certain types of professional improvement training where this training is of an organized character.

Under the first type of organization, the function of teacher training has usually been delegated to a State university or a State agricultural and mechanical college. As a matter of fact, this function has not only been delegated, but in many cases the institution has been left perfectly free to carry on its teacher training in any way that it sees fit. In general, under this plan, agricultural teacher training and home economics teacher training have been carried on in agricultural and mechanical colleges, and the training of trade and industrial teachers to a less extent has been carried on in engineering institutions or in departments of State universities.

Evidently, a small area to be covered and a congestion of population are conditions that very favorably affect any teacher training work which is carried on outside of an institution, as where the State board for vocational education conducts the training directly, or where the training is given by local supervisors. A good example of the effective carrying on of such training, under conditions of small area and congested population, is found in the teacher-training organization which was originally adopted by the State of Massachusetts, and which, with some modifications, is still in operation. When this program of teacher training was first inaugurated, it was made a direct function of the State board

for vocational education by special enactment of the Massachusetts Legislature, and the development of the program was placed in the hands of an agent of the State board. It was found to be quite possible to locate teacher-training courses in some five cities and to have these courses directly carried on either by heads of departments or by directors of vocational schools in these communities. The congestion of population that prevails in Massachusetts and the very complete system of transportation existing there made it possible for each of these centers to reach a very large number of people, so that there was no difficulty in offering teacher training to almost anyone who desired it. The first step in the setting up of the program was the training of local supervisors as teacher trainers by members of the staff of the State board.

While such a scheme as that just described has worked very well under the conditions existing in Massachusetts, it evidently would not work well in a large State where the population is more or less widely scattered — as, for example, in the State of Texas. In such States the plan adopted has been essentially that of providing itinerant teacher trainers, working out of the State office, for trade and industrial education, while home economics and agricultural teacher training has been carried on in designated institutions.

The Trend of Teacher Training. — When teacher training was first initiated under National and State vocational acts, it was expected, as a matter of course, that the training would be given in institutions. The only serious question was whether it should be given in normal schools, or in colleges and universities. As the necessities of the vocational program have developed, however, there has been a very distinct trend toward the setting up of training programs which are not entirely conducted in institutions. This has perhaps been more marked in trade and industrial teacher training than in the other fields, but, on the whole, it can be said that the tendency is more and more to provide organizations for teacher training of the second and third types, as given on page 393. The latest development in this direction has been the authorization by the Federal Board for Vocational Education of the use of Federal funds as reimbursement for such part of a

local supervisor's salary as may be allocated to the work of local supervision. The ruling (see page 86) applies to those supervisors who are qualified to act as teacher trainers, and who are held responsible under the provisions of the State plan for giving teacher training to the teachers in the programs which are under their supervision.

Professional Improvement. — The early conceptions of teacher training were very similar to those of normal school training, in that it was assumed that all training was to be of a preëmployment character. As more experience has been secured it has become more and more evident that much of the training must be of a post-employment character, commonly designated as professional improvement or training in service. In the companion volume on Supervision the authors have discussed the responsibility of the supervisor for giving unorganized teacher training on a professional improvement basis, and that discussion will not be repeated here. On the other hand, to the extent to which provision is to be made for organized teacher training, it will be necessary for the administrator to give consideration to several different typical plans. These typical plans are as follows:

1. The organization for professional improvement through the utilization of summer school courses, as given in colleges and universities.
2. The organization of schools of instruction handled directly from the State office.
3. A plan of professional improvement which may be called unorganized in that it is essentially individual in its character.

In regard to the first plan, evidently the administrator's interest in it will be chiefly to see that such courses as are taken for purposes of professional improvement shall function in increased efficiency on the part of the instructor. This professional improvement may be secured by setting up certain additional teacher qualifications which can only be met through the taking of certain courses out of the entire program offered by summer schools, such courses being recommended by the supervisor.

If he gives consideration to the second plan, he will be very

directly concerned with the selection of the persons who are to give the courses and with the character of those courses. The personnel would naturally consist, so far as possible, of members of his own supervisory staff, or of members of the supervisory staffs of other organizations on whom he can draw. It should be clearly understood that such a scheme as is under discussion here is in no sense comparable to the ordinary teachers' institute, or to an ordinary two or three-day conference with a general program and a number of speakers. Such meetings unquestionably serve their purpose in promoting interest and in developing enthusiasm, but they have very little direct professional improvement value. Where professional improvement work is to be handled by the staff of the administrator, the conference should be sufficiently prolonged and the character of the work done should be sufficiently instructional to permit the completion of various units of subject matter or of training, as in summer school courses. In fact, these conferences should be somewhat superior to summer school courses in that the work given is more specifically related to teaching, the group is more definitely selected, and presumably has a greater professional interest in the character of the instruction. Good examples of this kind of improvement work will be found in such Federal Board for Vocational Education Conferences as have been held at Minneapolis, Minnesota, Blue Ridge, North Carolina, Harrisburg, Pennsylvania, and in various other regions from time to time.

Where the third type of organization prevails, there is no necessary attempt at providing any form of organized training either through the summer school courses or through schools of instruction conducted by the State office. Each case is treated on an individual basis. The organization consists in an administrative requirement that some form of professional improvement, approved by the State office, be carried through each year by every teacher. The particular form of improvement should be determined by an agreement between the members of the supervisory staff and the teacher in question. Such improvement work may consist in one case of taking a selected summer school course at the State university or the State agricultural college, and in another case it may consist in going back into the teacher's

previous occupation to secure further occupational experience. In still another case it may consist in doing some individual piece of research or constructive work related to the school program.

Of the three types of organization outlined in the foregoing discussion, there is very little doubt that the third type is the most efficient and at the same time imposes the greatest burden upon members of the staff. It is comparatively easy to set up certain requirements of a scholastic nature and simply require that instructors go somewhere and take such courses. It is much more difficult to go through the long process of working individually with each instructor, of evaluating his strength and weakness, and then agreeing upon some special piece of work which will best aid that instructor in strengthening his weak points, whatever they may be. It is, however, the procedure which an engineer would follow in mechanical pursuits, and the results are well worth the effort.

Classification of Vocational Teachers. — According to the classifications of teachers set up under many State programs, three types of instructors are recognized: the technical instructor, the shop instructor, and the non-vocational instructor. The chief difference between the qualifications of a technical instructor and those of a shop instructor is expressed roughly by saying that a greater amount of education and a certain amount of technical training are required of the technical instructor, and a correspondingly greater amount of practical experience is required of the shop instructor.

There is now coming to be a greater and greater recognition of the fact that, with a properly operated scheme for preëmployment teacher training and for professional improvement in service, the entire vocational program should be successfully conducted by an occupationally trained instructor. This means that the need for the technical instructor disappears in proportion as the weak points of the occupationally trained instructor are removed by means of effective teacher-training courses and organizations for professional improvement. In establishing schemes for the classification of vocational instructors, or in considering the modification of the present scheme, it would be well for an administrator to consider whether or not it is desirable to include a recognition

of the technical instructor as distinguished from the shop instructor. According to the present trend, the two will be made one in the near future. As an illustration of the present situation, however, there is included here a statement of the qualifications of a technical instructor and those of a shop instructor, taken from the trade and industrial portion of a State plan.

Qualifications of Teachers. —

(1) *For teachers of shop subjects:* Graduation from an elementary school or equivalent training; from two to five years of experience, beyond the apprenticeship period, in the practice of the vocation taught in the school shop, and proven skill in that vocation.

(2) *For teachers of related subjects:* The completion of at least two years of college work, one-third of which shall be in technical and scientific subjects; at least one year of shop experience; and ability to relate the classroom instruction to the trade experience of the students. Such teachers must have completed or be in attendance upon prescribed teacher-training courses.

The Local Supervisor as a Teacher Trainer. — A recent ruling of the Federal Board for Vocational Education, page 86, has made possible the utilization of Federal funds for partial payment of salaries of qualified local supervisors. This action was taken presumably because the board had come to realize that in many cases the local supervisor is the logical individual to improve his own teachers. Up to this time but little consideration has been given to the training of teacher trainers, and but little experience in this work has been secured. It can at least be pointed out that teacher training is also a vocation, and hence any program for training teacher trainers can be established by following the same standards that would be followed with regard to any vocational training course — that is, by making an analysis of the requirements of the job and then by establishing experience and informational content which would result in giving the individual the equipment to perform the job in a satisfactory manner. At least sufficient experience has been secured to indicate that the problem of training a teacher trainer is entirely different from the problem of training a teacher. The objectives are different, the necessary training experience must be different, and the informational content is different, which, of course, means that the quali-

fications of a teacher of teacher trainers would be quite distinct from those of a teacher trainer.

Standards for the Employment of Teachers. — At the present time the provisions set up for the authorization of the employment of teachers vary greatly. In certain States there have been carried over into the field of vocational education the same general methods of certification which exist in general education. These methods of certification are very well illustrated in the following extracts from the California State regulations governing the granting of special credentials and certificates in trades and industry and in agriculture:

REGULATIONS GOVERNING THE GRANTING OF STATE SPECIAL CREDENTIALS OF VOCATIONAL ARTS TYPE IN TRADE AND INDUSTRIAL OCCUPATIONS*

Applicants for short-term credentials of this type must meet the conditions prescribed under the general and professional requirements.

A certificate issued on a credential to teach any subject specified under this type will authorize the holder thereof to teach to his classes such drawing, mathematics, and science as are an essential part of such subject and for which separate credit is not given. When separate credit is given, *i.e.*, when the mathematics or science or drawing is listed separately on the school program, the teacher must hold either a credential to teach such supplemental subjects, or a special permit to teach supplemental subjects granted to the holder of a general secondary credential.

SECONDARY SCHOOL GRADE

General Requirements. —

(*a*) Credentials for full-time instruction will be granted only to persons between 24 and 45 years of age, who are of good moral character, of good health, and without physical defect which would impair their fitness for the teaching service.

(*b*) Applicants must have completed at least two years of schooling beyond the eighth year of the elementary school course; and will be required to pass examinations in oral and written English composition, in civic and general information, and in the trade or industrial occupation for which the credential is desired.

(*c*) Each applicant must certify (by original letters from employers) three years of experience as journeyman worker, based upon apprenticeship train-

* Bulletin No. 10-V, revised April, 1925, California State Board for Vocational Education.

ing or its equivalent, or — where this terminology does not apply — its equivalent in the vocation he is preparing to teach.

(*d*) Each applicant must have been working in the trade or industrial occupations as a journeyman worker for at least one year during the past three years.

Professional Requirements. — The training must include at least fourteen semester-hours of professional education, taken in vocational teacher-training courses for the preparation of vocational teachers in trade and industrial occupations.

This is a two-year course, consisting of a minimum of three hundred and thirty-six hours, completed either in evening school during the year, or in special summer-session courses of the University of California, either at Berkeley or in Los Angeles.

NOTE. — Those who take this work in the summer sessions only will complete but twelve semester-hours and will lack two semester-hours of observation and practice teaching. In such cases special arrangements must be made with the supervisor of teacher training to meet this requirement.

Following is an outline of the course:

	Semester-Hours
1. Occupational analysis and curriculum construction	2
2. Technique of vocational instruction	2
3. Theory and administration of vocational education	2
4. Civic and employment relations	2
5. Oral and written presentation of vocational material	2
6. Supplemental subjects	2
7. Observation and practice teaching	2
Total	14

An applicant who has not completed the required teacher-training course may be granted a short-term credential under the following conditions:

1. A definite vacancy must exist for which there are no fully qualified applicants available. This must be attested by the school administrator stating intention to employ the applicant, and

2. The applicant receiving the short-term credential under these conditions must complete the required teacher training as indicated on the credential.

THE LONG-TERM CREDENTIAL

Special Requirements. — Teachers holding credentials of the vocational arts type in trade and industrial occupations who have completed the minimum vocational teachers' training course (outlined above) will be required to complete six semester-hours of further work, or its equivalent, within two

years following the completion of the minimum course, as a condition for the granting of the long-term credential.

This requirement may be fulfilled in two ways:

1. By taking further courses in education pertaining to junior, senior, or part-time high school problems, including vocational guidance, placement, coördination, surveys, etc., or

2. By pursuing definite research or investigation in vocational education under the direction of the Division of Vocational Education of the University of California.

REGULATIONS GOVERNING THE GRANTING OF STATE SPECIAL CREDENTIALS OF VOCATIONAL ARTS TYPE IN AGRICULTURE

Applicants for credentials of this type must meet the conditions prescribed under the general, professional, and special requirements.

A certificate issued on a credential to teach any subject specified under this type will authorize the holder thereof to teach to his classes such drawing, shop work, mathematics, science, and accounting as are an essential part of such subject and for which separate credit is not given.

SECONDARY SCHOOL GRADE

General Requirements. —

(*a.*) Three years of practical farm experience.

(*b*) At least one unit of agriculture in a secondary school.

(*c*) Schooling leading to graduation from a college of agriculture and fifteen semester-hours of post-graduate work, or an equivalent combination of such schooling and experience.

Professional Requirements. — The above general requirements must include at least fifteen semester-hours of professional courses in the department of education, distributed approximately as follows:

	Semester-Hours
1. Theory and administration of vocational education	2
2. Educational psychology	2
3. Curriculum construction and technique of teaching agriculture	3
4. Principles and methods of teaching supplemental subjects	2
5. Observation and practice teaching	2
6. Electives in professional education	4
Total	15

Special Requirements. — For fully qualified applicants — a minimum of sixty semester-hours of special training suited to the needs of teachers of high school students, distributed approximately as follows:

		Semester-Hours
(*a*)	Studies in plant production	15
(*b*)	Studies in animal production	15
(*c*)	Studies in farm mechanics	6
(*d*)	Studies in agricultural economics and farm management	9
(*e*)	Studies in rural social problems	3
(*f*)	Oral and written presentation of agriculture material	3
(*g*)	Electives in groups *a*, *b*, or *c*	9
	Total	60

Applicants who have not completed the specified amount of work listed under special requirements will be limited in their credential to those fields in which they have satisfied the requirements.

Apart from these somewhat elaborate schemes of certification, both for employment and for professional improvement, there is a totally different scheme of approval under the qualifications given in the State plan. In order that a local community may receive State or Federal aid, it is necessary that the instructor be able to meet the qualifications provided in the State plan. It is obvious that the second method has more elasticity than the first. It is less mechanical and is unquestionably the better of the two in cases where it is not necessary to handle large groups of applicants.

In general, the qualifications for the certification or employment of vocational teachers have tended in two general directions. In agriculture and home economics there is a general emphasis upon the requirement that the teacher shall be a graduate of a college either in home economics or in agriculture, and shall have had some occupational experience either before entrance or during his or her career in the institution. In trade and industrial education the tendency has been to emphasize successful occupational employment for a minimum time.

The Evaluation of Teacher-Training Courses by the Administrator. — The statement has already been made that an administrator can not be expected to be in possession of the detailed technical knowledge which will enable him to pass upon the efficiency of a teacher-training program in the same way that a supervisor should be able to do so. Nevertheless, as he is ultimately

responsible, he should be in a position to evaluate to a reasonable degree, the efficiency of such a program. In making this evaluation he will find the ten points given in Diagram No. 12, on page 201, which characterizes the efficiency or inefficiency of a vocational program, equally applicable to teacher training.

There are certain factors which must be taken into account in considering an organization for teacher training. These may be indicated as follows:

1. Accessibility.
2. Group selection.
3. Qualifications of teacher trainer.
4. Provision for practical experience in teaching.

A vocational teaching job can be expressed in terms of Richards' formula, $E = M + T + I$. In this formula M indicates the individual's skill in utilizing the various methods and devices which are known to the teaching profession; T indicates a knowledge of methods and devices; and I indicates such general information about teaching as constitutes an additional asset to an instructor. M corresponds to what is commonly secured in shop work in vocational training courses. What corresponds to the shop work in teacher training is, of course, the practice teaching. The objective of practice teaching is exactly the same as the objective of the shop work. It is to develop teaching skill and practice in applying the technical knowledge on the teaching job. The important thing is that any preëmployment teacher training organization should provide a sufficient amount of practice teaching to insure some degree of doing ability rather than a pure appreciation of the need of securing such ability.

Foreman Training. — There is now being developed in a considerable number of States a demand for service for the improvement of foremanship. This service has frequently included the establishment of elementary teacher-training courses either for instructors in trade and industrial plants, or for foremen who in turn are called upon to give instruction or to supervise instruction given by others in their department. This demand has led in a number of cases to provision in the organization for this particular type of teacher training, and it may be that an adminis-

trator would have occasion to give consideration to this problem in any plan for teacher training which he might authorize. The chief points under consideration are that the teacher training under these conditions is usually of a very much simpler type and requires less time than the regular teacher training given to prospective instructors, and requires somewhat different qualifications on the part of the individual who conducts such training. Up to the present time, this individual has been almost invariably selected from the supervisory staff of the State board of education, or the work has been handled through extension courses conducted by State institutions.

The Training of Evening School Instructors. — A large proportion of the program of vocational education is conducted with adult workers in the "evening," or what may be more properly called "leisure time," courses. Until recently no attempt has been made to distinguish between the type of teacher training which would be given to an individual who proposed to abandon the practice of an occupation and devote his time entirely to vocational instruction, and the type given to an individual who planned to continue the practice of his occupation and to serve as an evening or extension instructor in his own leisure time.

The result of a failure to discriminate between these two types has been that a great deal has been included in teacher-training courses for these trade extension instructors that was unnecessary. Moreover, in many cases, it has been found impossible to give them any extensive teacher training for the simple reason that the desirable individual of this type who is putting in his evenings as an instructor does not usually consider that additional time given to teacher training is worth while. If the question is forced upon him he simply gives up the teaching. Consequently, there has been a recent tendency to develop special teacher-training courses wherein there has been given to such individuals enough of a general idea of the difference between teaching, telling, and showing, and of simple methods of instruction which function well in this particular type of work, to enable them to do a very good instructing job. Such courses have often covered not more than fifteen to twenty hours, and sometimes even less.

Where such courses have been given, in many cases, evening

trade extension instructors have become sufficiently interested in teaching to be willing to take more training as professional improvement in successive years; but it must be remembered that, in dealing with such individuals as these, the requirements in the matter of training must not be at all burdensome, or the desirable instructors of this type will simply give up teaching altogether. In many cases such individuals do not take up teaching for the sake of the money that is in it, but through a more altruistic motive, such as a desire to be of service to their own trade or occupation. It is very easy, by forcing the situation, to lose the best instructors and to retain only those who need the extra income and who are not really the most desirable.

The Call or Reserve Staff. — One of the serious administrative problems which come up wherever evening trade extension courses are conducted is the fact that such courses can not be standardized. It is not possible to set up a standard series of courses and run them continually year in and year out, since to be successful such evening courses must be given as the demand is made. The staff of a day school, if there is a day school, can only be partially utilized for the reason that, as a rule, evening school enrollment far exceeds day school enrollment, and, moreover, an instructor who is teaching all day should not be required or even allowed to do a great deal of evening school teaching. Consequently, it is necessary to be able to secure at short notice competent instructors for trade extension courses. This has led to the development of what is sometimes designated as the " call or reserve staff." For example, at William Hood Dunwoody Institute, in Minneapolis, a wide variety of evening courses is given and the character of these courses is continually changing. There has gradually been built up, however, under the administration of the director of evening work, a large group of competent workers who are ready, when called upon, to take an evening class. Under these conditions, when a new group of students makes a request for certain training, the director is able, by a very little work, usually with the telephone, to secure an individual who is competent to act as an instructor, and who, in many cases, has previously acted as an instructor in the same subject.

The question of teacher training for members of a " call or re-

serve staff " admittedly offers very serious difficulties. Probably, at first, with the uncertainty of employment, it is doubtful if any preëmployment training can be given. It may be found possible to give a little unorganized training in conjunction with any service they may render as evening school instructors, and it is doubtful if very much more can be done. The organization and maintenance of a " call or reserve staff," however, does form an important part of the responsibility of an administrator wherever he has to include in his program any form of extension of special courses, and the question of teacher training for members of this staff is an administrative problem.

Specialized Teacher Training. — It must be evident to the reader of this chapter that the problem of teacher training is, for the administrator, one of organizing a number of distinct teacher-training agencies, rather than depending upon a single organization. There are at least the following distinct problems:

1. The problem of the preëmployment training of day, evening, and part-time teachers for agricultural instruction, trade and industrial instruction, home economics instruction, commercial instruction, and for work in general continuation schools.
2. The problem of organizing distinct training courses for these different groups of instructors.
3. The problem of ascertaining the demand of each one of these teaching jobs.
4. The problem of securing content and training experience which will best equip them for these jobs.

As more and more experience has been gained, it has become evident that the factors which affect this situation are very largely questions of the working conditions and of group characteristics. For example, a group of mature occupational workers who are giving their leisure time to training will succeed very well in getting what they want from an instructor, provided the instructor himself is occupationally competent, although this work will not be as efficiently done as it might be were the instructor better trained. There is a great difference, however, between the situation that exists when a mature, occupationally competent individual acts

as an instructor to a group of mature, semi-occupationally competent individuals, and that which exists when a similarly competent individual is charged with the responsibility of instructing a group of adolescents in a full-time day school. That is to say, a considerably higher degree of training in teaching technique is necessary for the all-day full-time instructor than for the evening school instructor.

The demands which are made upon an agricultural instructor in a rural community, where he is expected to be an instructor in day courses and also in evening courses, to supervise home projects, to act as a leader in the community, to assist in the setting up of exhibits in county fairs, and to conduct community surveys, are evidently quite different from those confronting a trade and industrial instructor in a large trade school located in an industrial city. In the latter case his functions are confined almost entirely to instruction, possibly with certain coöperating or coördinating or placement responsibilities, which, however, are confined to his own particular occupation. All such factors should be taken into consideration in setting up teacher-training courses.

Content of Teacher-Training Courses. — In the discussions in this chapter no reference has been made to the content of teacher-training courses, because the selection of content seemed to the authors to be a function of the supervisor rather than of the administrator. It is, however, a responsibility of the administrator to see that the content is of a functioning character.*

The Training of the Coördinator. — In any program for vocational education it is necessary to provide for the function of the coördinator wherever part-time or apprenticeship courses are included in the organization on a coöperative basis. While the coördinator can not be regarded as an instructor, it still seems to be highly desirable that an administrator, wherever the coördinating function is included in the program, should make some provision for the training of coördinators as well as of teachers, to the extent that some definite preëmployment training is provided,

* For a full discussion of this question, see Chapter XVII of "Vocational Education in a Democracy," by Prosser and Allen, The Century Company, 1925; and Chapter XV of "The Supervision of Vocational Education," by Wright and Allen, John Wiley and Sons, 1926.

and that they are also subjected to some form of professional improvement.

The general way in which such training courses should be developed would be to follow the usual procedure — to determine accurately what the demands of the coördinator's job are, and then provide such experience and such informational content as would represent training in the *M*, *T* and *I* values of Richards' formula. At the present time this problem still lies in the field of research, and, so far as the authors are aware, there has been little or no attempt made to provide training for this group through any organized instructional agency.

Some Fallacies. — In closing this chapter, it seems well to draw attention to certain fallacies which have centered around the question of teacher training. The first of these fallacies is that it is possible in some way, through institutional training, to offer a satisfactory substitute for a reasonably long period of progression through an occupation itself. The second fallacy is that the equipment of a teacher consists very largely of general background information, rather than in training in the theory and practice of teaching, and in the subsequent ability to teach. The third fallacy is that the period of teacher training for occupationally competent workers needs to be extremely long. For example, in some States the total training period required in such cases will aggregate some three hundred or four hundred hours, which, according to the most modern experience, is more than is necessary. The fourth fallacy is that teacher training for vocational education could be conducted entirely on a preëmployment basis. Sufficient recognition has not been given to the fact that professional improvement, organized or unorganized, carried on parallel to the increasing experience of the individual as an instructor, is by far the more efficient of the two. It has been suggested that a very short preëmployment training period, perhaps of fifteen to thirty hours, followed by a definite program of professional improvement, might lead to the development of more efficient instructors than any long preëmployment period. This theory is in line with the most modern trend in vocational education, which is that any effective form of parallelism between experience, practice, and instruction in the theory of that practice, is more efficient

than the giving of the theory in advance of the practical experience.

QUESTIONS, CASES, AND POINTS FOR DISCUSSION

1. As an administrator, you are called upon to establish a plan for teacher training. You can have your choice between delegating this function to an institution, establishing it as a function of your own office, or delegating it to local supervisors. Which of the three plans would you establish, and why?

2. What would be the factors which you would consider if you were deciding between the second and third plans? Make out as complete a list as you can of the factors which you think would influence the decision.

3. Discuss, *pro* and *con*, the advantages and disadvantages of a system of certificating teachers as against a system of approving instructors, when appointed by local communities, under the provisions of a State plan.

4. Make a list of the different ways in which an inefficient teacher training course could interfere with the efficiency of a vocational program.

5. Make a two-column table. In the first column list what you consider to be the necessary assets of a teacher in general education, and in the second column make a corresponding list of what you consider to be the necessary assets of a vocational instructor.

6. Set up the main points of a complete scheme of teacher training, to include (*a*) the preëmployment training of trade and industrial instructors or of vocational instructors in any field with which you are familiar, (*b*) the provision for professional improvement, and (*c*) the provision for the training of members of a "call staff." In each case indicate (1) the length of time for the courses, and (2), if these courses are to be organized, what you consider should be the general character of the content.

7. As an administrator, what provision would you make for effective practice teaching in preëmployment teacher training?

8. As an administrator, you are proposing to establish a plan for teacher training. You call the supervisor in for consultation. Just what questions would you ask him, and why?

9. Point out in detail the administrative difficulties involved where there is no uniform standard scheme of State certification which is common to all teachers.

10. If as an administrator you propose to establish or to secure the approval of specific certificating qualifications for vocational instructors, draw up the main points of the plan you would recommend, and give your reasons.

11. Of the various fallacies discussed in the last paragraph of this chapter, which, in your opinion, are most likely to interfere with successful teacher training?

12. Make out a State plan providing for teacher training which is based upon (*a*) the training of teacher trainers by members of the staff of the State office, and (*b*) the training of teachers by those teacher trainers in local centers.

13. Make a list of the main differences which would have to be recognized between a course for the training of teacher trainers and the teacher-training courses.

14. Discuss, *pro* and *con*, the statement made in the text that no supervisor can be held responsible for the efficiency of a program unless he is able to control the qualifications of those individuals who actually do the work.

15. Make out a list of the ways in which a poorly equipped or otherwise unqualified instructor can actually break a program.

16. Assuming that such a program does break down, make a list of the relative responsibilities of the administrator and the supervisor for such a breakdown.

17. Discuss the advantages and disadvantages, from the standpoint of the character of the training, as between teacher-training courses delegated to State institutions and teacher-training courses that are handled directly from the State office.

18. Assuming that any teacher-training course must be given to a selected group, what would you consider the necessary qualifications for admission to such a training course?

19. For the different typical plans for teacher training, discussed in this chapter, should the State office, or the training agency, or the teacher trainer be the certificating official? Why?

20. Who should determine the conditions of admission to a teacher-training course, the administrator or the supervisor? Why?

21. In the case of teacher training for teachers in the general continuation school, on the assumption that such teachers are to be drawn from the better teachers in the elementary schools, would you say that such training should be given on a preëmployment or on a post-employment basis? Give reasons for your answer.

22. In a two-column table set up the comparative advantages of:

a. Preëmployment training.
b. Training subsequent to employment.

Be prepared to give reasons for the points you have included in your table.

23. Set up in a similar table the disadvantages of the two methods of training.

APPENDIX

SELECTED SUPPLEMENTARY READINGS

For the benefit of the reader who may wish to enter more fully into a consideration of questions discussed in the text, a limited bibliography of supplementary readings has been prepared. The publications listed in this limited bibliography have been selected as types only. The reader may find other publications of a similar character which will likewise serve his purpose. The bibliography is particularly limited since few books have been written which deal with the administration of vocational education. Because of this fact, and since the authors have relied entirely upon their individual experiences for the major part of the text, it has not been possible to supply the usual bibliography of source material.

The Psychology of Vocational Adjustment. H. D. Kitson. Lippincott, Philadelphia, 1925.

Points out the psychological problems in choosing a vocation, describes attempted solutions, and suggests further scientific methods. The text deals with the beginnings of vocational psychology with signs of vocational maladjustment, with physical signs of aptitude, with intelligence, interest and incentives, and with records and ratings.

The Supervision of Vocational Education. J. C. Wright and Charles R. Allen. John Wiley & Sons, Inc., New York, 1926.

Treats of the function of supervision of vocational education along the same general lines as the function of administration is treated in this book.

Vocational Self Guidance. Douglas Fryer. Lippincott, Philadelphia, 1926.

Deals with the problems of self guidance and vocational adjustment. Introduction by H. D. Kitson.

Annual Reports to Congress. Federal Board for Vocational Education. Government Printing Office.

A study of these reports will show the change in the character of maximum demand from administration to supervision and service;

the character of the service, the administrative functions, and the organization of the Board.

Public School Administration. Ellwood P. Cubberley. Houghton Mifflin Co., Boston, 1922.

A very complete treatment of the fundamental principles underlying the proper organization and administration of public education in the United States.

The historical treatment will be of value to the reader as extensions of certain references in different parts of this text referring to historical reasons for certain present conditions that affect the supervision of vocational education. The descriptions and discussions relating to standard public school administration will also be of value in connection with the discussions in different chapters in this book relating to the need for different school organizations in vocational education from the typical school organizations common in general education of less than college grade.

Educational Aims and Educational Values. Paul H. Hanus. The Macmillan Co., New York, 1899.

This book is developed around the thesis that education is preparation for life. It is of interest in connection with discussions in this text bearing on the relation of vocational education to the complete educational program of society.

Vocational Education in a Democracy. Charles A. Prosser *and* Charles R. Allen. Century Co., New York, 1925.

A general discussion of the basic philosophy, standards and theories of vocational education, together with a description of the various types of schools and classes that have been developed up to the present time for providing this special form of education efficiently to all social groups Selected references follow each chapter.

Education and Vocations: Principles and Problems of Vocational Education. Theodore H. Eaton. John Wiley and Sons, 1926.

The School and Society. John Dewey. University of Chicago Press, Chicago, 1909.

Valuable to the reader who may wish to clear up his thinking as to the distinction in social service between motivated and enriched general education and vocational educational programs, industrial arts, manual training.

Report of the Commission on National Aid to Vocational Education. Part 1. Report of the Commission. Part 2. Hearings before

the Commission. 63d Congress, 2d Session. House Doc. No. 1004. Government Printing Office, 1914.

This Report resulted in the passage of the National Vocational Act. Chiefly of value to the reader as showing the conceptions as to what constitutes vocational education as conceived in that special piece of National Legislation, and State Acts complementary thereto.

Publicity Campaigns for Better School Support. Carter Alexander *and* W. W. Theisen. World Book Co., Yonkers on Hudson, N. Y., 1921 and,

Promoting Vocational Education in Agriculture. Bulletin No. 97. Paul W. Chapman. Federal Board for Vocational Education. Government Printing Office, 1925.

A study of methods used in connection with overhead promotional work in securing adequate financial support for general or vocational agriculture schools. The two foregoing publications are suggestive in many ways as to the character of good and poor publicity material and general procedure in promoting educational work in a community. Alexander and Theisen's book also contains a very complete bibliography.

Foreman Training Courses. Bulletin No. 36. Charles R. Allen. Federal Board for Vocational Education. Washington, D. C., 1920 and,

The Foreman and His Job. Charles R. Allen. J. B. Lippincott Co., Philadelphia, 1922.

These two publications deal largely with the work of the foreman as a supervisor in industry, whose duties are largely similar to those of a supervisor of vocational education. Hence they are suggestive, especially with regard to the analyses of supervisory responsibilities on which they are based. The texts are valuable to any administrator desiring to make a classified inventory of his own responsibilities. "The Foreman and His Job" also contains the results of discussions carried on by many foremen as to the factors involved in leadership, personnel management and efficient supervision.

Massachusetts Department of Education. Division of Vocational Education. State-aided vocational and part-time education in Massachusetts. Bulletin No. 167. Office of the Department, Boston, 1926.

This bulletin gives the full data as to the general character of the organization of the vocational work in Massachusetts, including the different types of schools, enrollment, expenditures of money and, in

general, statistical data dealing with the way in which the State plan has been carried out in practice.

Statement of Policies. Bulletin No. 1. Federal Board for Vocational Education. Washington, D. C., 1922.

Agricultural Education — Organization and Administration. Bulletin No. 13. Federal Board for Vocational Education. Government Printing Office, 1926.

Trade and Industrial Education — Organization and Administration. No. 17. Federal Board for Vocational Education. Government Printing Office, 1924.

Home Economics Education — Organization and Administration. No. 28. Federal Board for Vocational Education. Government Printing Office, 1924.

Bulletins Nos. 1, 13, 17, and 28 deal with a number of subjects with which a supervisor is concerned wherever he is responsible for the promotion of programs of vocational education which are State and federally aided under the provisions of the National Vocational Education Act and of State Acts complementary thereto.

The Instructor, the Man and the Job. Charles R. Allen. J. B. Lippincott Co., Philadelphia, 1919.

Serviceable as a discussion of the application of the general principles of pedagogy of occupational analysis and of curriculum building to the special conditions and objectives of vocational education, especially in the trade and industrial field. Includes a standard scheme for making out a classified analysis of functioning content in vocational education.

Mathematics and the Machinist's Job. Frank Cushman. John Wiley & Sons, Inc., New York, 1926.

This book consists of the detailed development of the specifically functioning content in the mathematical field developed from Bulletin 52, Theory and Practice of the Machinist's Trade, Federal Board for Vocational Education. It should be extremely suggestive to any supervisor desiring to secure similar functioning content for the development of courses in vocational education.

Sociological Determination of Objectives in Education. David S. Snedden. J. B. Lippincott Co., Philadelphia, 1921.

A general discussion of the relation of education to human progress and welfare. Of value to an administrator who is desirous of securing a general sociological background for his work in vocational education. Includes a chapter on the sociological values of vocational education.

Educational Tests and Measurements. W. S. Monroe, J. C. De Voss, *and* F. J. Kelly. Houghton Mifflin Co., Boston, 1924.

The first part of this book deals largely with descriptions of tests chiefly designed for the measurement of elementary educational subjects. The chapters on intelligence tests, and their application to progression control of pupils and to other problems in general school supervision, have an indirect bearing on the work of an administrator in the field of vocational education, from the standpoint of a number of points and questions raised in the text.

Employee Training. John Van Liew Morris. McGraw-Hill Book Co., New York, 1921.

A description of plans for employee training which have been worked out in a number of employing corporations. Bears indirectly on questions relating to admission and rejection of students in vocational schools and classes.

Human Efficiency and Levels of Intelligence. Henry H. Goddard. Princeton University Press, Princeton, N. J., 1920.

A brief and easily understandable popular description of the modern theory of intrinsic intelligence and the character and use of intelligence tests for determining such intrinsic intelligence. Valuable to the supervisor who has to deal with questions affecting the basis for proper and improper selective grouping of students as between general and vocational educational programs.

Personnel Management. Walter D. Scott *and* Robert C. Clothier. A. W. Shaw Co., Chicago, 1923.

A standard treatise on employment and personnel management problems. Valuable in connection with discussions in the text touching on the difference between personnel management in general and vocational educational schools and classes.

The Iron Man in Industry. Arthur Pound. The Atlantic Monthly Press, Boston, 1922.

Pictures the profound effect on modern life that has come about through the development of labor saving machinery and of methods of quantity production, and argues that the ultimate result of further development will do away with vocational education as we now know it. Of value to an administrator as bearing very directly on a number of his problems in securing coöperation from the proponents of education for leisure. This theory is discussed and attacked in "Vocational Education in a Democracy" already referred to. The two should be read together.

School Administration and School Reports. Paul H. Hanus. Houghton Mifflin Co., Boston, 1920 and,

School Supervision. William H. Payne. American Book Co., New York, 1903.

These books describe methods of keeping school records and reports as applied to general education. The same methods and devices are not adaptable to the needs of vocational education as data and statistics of a different character are sought.

The War with Germany. Leonard P. Ayres. United States General Staff. Government Printing Office, 1919.

While this book deals entirely with statistics of the war with Germany, it contains every conceivable type of graphical statistic, and hence would be of value to the supervisor as suggestive material.

The Supervision of Instruction. Hubert Wilber Nutt. Houghton Mifflin Co., Boston, 1920.

An excellent description of the technique and professional standards of supervision for general education. Of interest to the supervisor of vocational education in connection with the question as to how far these same standards and this same technique can be successfully applied in vocational education.

Our Boys. A study of the 245,000 sixteen, seventeen and eighteen year old employed boys of the State of New York. Howard G. Burdge. State of New York Military Training Commission, Albany, New York, 1921.

The book is of interest in attempting to answer the question why boys leave school.

Vocational Guidance and Counseling. Alanson H. Edgerton. The Macmillan Co., New York, 1926.

The book dealing with vocational guidance is principally for school counselors, school officials, special investigators, and research workers concerned with vocational educational counseling problems.

Vocational Education Surveys. —

The last survey made by the National Society for the Promotion of Industrial Education, which has since become the American Vocational Association, was made in 1917, and published in 2 volumes by the Indiana State Board of Education, as Educational Bulletin No. 21. The survey was limited to the city of Indianapolis.

Vocational education survey, Richmond, Indiana. Robert J. Leonard, Director. The Indiana State Board of Education. Educational Bul-

letin, Vocational Series No. 15. 1916. The aim of the survey was to ascertain from a study of the industries of this community the facts that would be needed to outline an efficient and economic program of vocational training for the community, and to ascertain the degree to which the needs were being met by existing agencies.

The Industrial education survey of the City of New York. Lewis A. Wilson, Director. New York, 1918. The report of the survey was issued in Five Parts, as follows: 1. The Printing Trade. 2. Inside Electrical Work. 3. Carpentry and Joinery. 4. The Machinist Trade. 5. Industrial Classes in the Public Schools.

Classified Index to Occupations. Bureau of the Census, United States Department of Commerce. Government Printing Office, 1920.

Alphabetical Index to Occupations. Bureau of the Census, United States Department of Commerce. Washington, Government Printing Office, 1920.

Descriptions of Occupations. Employment Service, United States Department of Labor. Washington, Government Printing Office, 1918.

The degree to which various occupations have been broken up into specialized work is indicated in these three publications.

Hiring the Worker. Roy Willmarth Kelly. The Engineering Magazine Co., New York, 1918.

While "Hiring the Worker" was written primarily to assist superintendents, foremen, and employment managers to solve their employment problems, it is hoped that certain portions will prove helpful to vocational counselors, school officers, parents, and social workers who are concerned in any way with helping others to choose their occupations or to plan their careers.

Handbook of Social Resources of the United States. Genevieve P. Hendricks. The American Red Cross, Washington, D.C., 1921.

The book contains information as to the many organizations dealing with health, social service, education, recreation, and civic and community betterment. It contains much information of interest to the supervisor of vocational education concerning the various agencies available for coöperative assistance in vocational programs.

Supervision and the Improvement of Teaching. William H. Burton. D. Appleton & Co., New York, 1922.

A general text on the mechanics of the supervision of instruction as applied to general education. Bibliographies at end of each chapter are suggestive for further reading along this line. Of value to the supervisor of vocational education as outlining fully the standard methods for teacher supervision as used in general education and hence suggestive as to their adaptation to supervision in the field of vocational education.

Methods in Farmer-Training, Through Participation and Placement. John Taylor Wheeler. Turner E. Smith Co., Atlanta, Ga., 1926.

This book is especially addressed to four groups of workers: (1) To the teachers of agriculture because they are charged with the actual organization and teaching of farmer-training courses in the schools of our rural communities. (2) To the teacher-trainers because their responsibility encompasses the entire training of these teachers of agriculture, including special methods in farmer-training courses. (3) To the supervisors of agricultural education. (4) To State directors of vocational education because upon them and the objectives they hold and the policies they pursue, depends the success of this important phase of our rural education program.

Opportunities for Vocational Training in New York City. Vocational Service for Juniors, *comp.* The Service, 122 E. 25th Street, New York City, 1925.

A complete directory of the schools in New York City giving vocational courses, including all public high schools offering such courses, and many private schools which have been selected on the basis of the extent and type of training offered.

The New Education in Europe. Frederick William Roman. E. P. Dutton & Co., New York, 1924.

The book is of special interest to students of vocational education since it describes present day development in technical and vocational education and the continuation schools in European countries. The text also contains much information concerning the effect upon education of the World War and the present day types of organizations.

Miscellaneous Material

On account of the comparatively recent development of programs of vocational education of less than college grade, especially those carried on under conditions of State and Federal aid, much information of value to an administrator is still only available in the form of ephemeral publications, hence it is impossible to give

detailed references. The following information will, however, be of service as suggesting sources from which functioning information may be secured.

State Plans.

These State plans give the general conditions under which the program of State and federally aided programs are carried on. Many States publish their State plans as public documents which can be secured from the State Departments of Vocational Education, located at the capitals of the various States.

Directories.

The United States Bureau of Education publishes a directory of educational institutions giving the names of the chief administrative officials.

The Federal Board for Vocational Education publishes from time to time a corrected list of State directors and supervisors of vocational education for the several States.

Certain research departments of universities, notably the University of California, publish from time to time the results of research work in the field of vocational education, particularly analyses of functioning content in trades.

Publications of the Federal Board for Vocational Education. —

Buildings and Equipment for Schools and Classes in Trade and Industrial Subjects. Bulletin No. 20. J. C. Wright.

Instructor Training. Bulletin No. 62. Charles R. Allen.

A Survey and Analysis of the Pottery Industry. Bulletin No. 67. H. B. Smith.

Part-Time Schools. Bulletin No. 73. H. B. Smith.

Analyzing a Potato Enterprise. Bulletin No. 74. C. H. Schopmeyer *and* A. P. Williams.

Part-Time Coöperative Courses. Bulletin No. 78. C. F. Klinefelter.

Effectiveness of Vocational Education in Agriculture. Bulletin No. 82. Prof. Charles E. Myers.

Apprentice Education. Bulletin No. 87. Dr. Jennie McMullin Turner.

Agricultural Evening Schools. Bulletin No. 89. J. A. Linke.

Agricultural Teacher Training. Bulletin No. 90. Dr. Theodore H. Eaton.

Bricklaying. An Analysis of the Trade of Bricklaying. Bulletin No. 95. G. A. McGarvey.

Directory of Trade Schools. Bulletin No. 99. C. F. Klinefelter.

Paper Hanging. An Analysis of the Paper Hangers' Trade. Bulletin No. 102. H. A. Tiemann.

Industrial Rehabilitation — A Statement of Policies to be Observed in the Administration of the Industrial Rehabilitation Act. Bulletin No. 57.

Industrial Rehabilitation — General Administration and Case Procedure. Bulletin No. 64.

Handbook of Information for State Officials Coöperating in the Administration of the Vocational Rehabilitation Act. Bulletin No. 77. Claude H. Anderson.

Civilian Vocational Rehabilitation — Its Purpose, Scope, and Methods, with Illustrative Cases. Bulletin No. 80. Millard A. Black.

Proceedings of the National Conference on Vocational Rehabilitation of Civilian Disabled. Washington, D. C., Feb. 4–8, 1924. Bulletin No. 93.

Proceedings of the National Conference on Vocational Rehabilitation of the Disabled Civilian. Cleveland, Ohio, Sept. 29–Oct. 2, 1925. Bulletin No. 104.

Publications of the Federal Board for Vocational Education can be secured at a nominal price from the Superintendent of Documents, Government Printing Office, Washington, D. C., and in some cases single copies can be secured directly from the Board.

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